Lectures
ON THE
CLINICAL USES OF ELECTRICITY.

Delivered in University College Hospital,

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LECTURE III.—PART II.

V. Therapeutic uses of Electricity continued. 3. In cerebral disease causing simple paralysis. Cautions. Modes of application, (a) when contractility is good; (b) when contractility is defective. 4. In cerebral disease with rigidity. 5. In cerebral disease with tremor, or clonic spasm.

WHEN either a nerve or a muscle exhibits diminished activity, you may often recall its functions to their proper standard by the use of electricity; and for this purpose either of the three forms of application may be employed. Franklinic electricity is distinctly useful in some cases where faradisation may have failed; but the interrupted galvanic current, and faradisation, are those which are most commonly applied.

In passing from these generalities to details of electric treatment, I will first speak of cerebral and then of spinal lesions.

3. First, let me direct your attention to those cerebral diseases which cause paralysis; and, at the outset, request you to be cautious. If, under any circumstances, paralysis, induced by cerebral disease, occurs suddenly, you should not use electricity at all—at any rate as a therapeutic agent—until some little time has elapsed. If you want to examine the limb, now and then, for the purpose of diagnosis or prognosis, you may use it very cautiously with a low power—e.g., a Cruikshank's battery, or some other form of galvanism. It is better to avoid faradisation altogether, for you may set up mischief, or, if you do not set it up, some mischief may occur, and you may get the credit, or discredit, of having caused it. Remember that the discredit may be entirely due to you for having used electricity indiscriminately. When there is any sudden paralysis, from any cause—whether hæmorrhage into the brain, or some embolic blocking up of a vessel, or some sudden congestion,—it is very unwise to disturb the patient in any way; the best thing for him is to be left alone; so pray do not use electricity.

But when the onset of paralysis, due to cerebral lesion, is not sudden, there is one condition under which I should advise you to be very cautious how you use electricity, and that is when such paralysis is attended by pain in the head, weight of head, or giddiness of head. When these symptoms are present, it is well to postpone, at any rate for a time, electric treatment, and this although the symptoms have come on gradually. But supposing that the paralysis has come on slowly, and is unattended by any pain in the head, or by any of the other symptoms I have mentioned, you may use it, and that fearlessly; but, at the same time, you must be cautious in your mode of applying it, for, although you may be fearless about it, patients sometimes may not be so; and it is very desirable not to throw electricity into disrepute by so frightening a patient with your apparatus, or your mode of using it, that you get the consequences of fright set down to the bad effects of electricity. I have known this to occur in several instances. Young children, and even some who in other matters are not children, have sometimes been so frightened by the look of an electrical machine, that serious mischief has been done by the fright—mischief which the electricity used could not possibly have produced, and which has sometimes been set up when the machine has not been used at all.

I pass on now to the consideration of those cases in which you may be recommended to use electricity therapeutically, and here must redirect your attention to their varying conditions.

(*a*) First, let us consider that condition in which the contractility of the paralysed limb, when you first apply the electricity, is good (testing the contractility, of course, according to the mode I spoke of in the last lecture). On applying the current you find a fair amount of readiness in the response of the muscles. The patient feels the electricity, and you can see the muscles act. It need not move as strongly as the healthy limb; but it moves, and you can see that it does. There may, or there may not, be any rigidity of muscles under these circumstances; but, in either case, you do little or no good by electricity. You may diminish the rigidity, you may improve the condition of the muscle, it may become firmer, the limb may become a little warmer, the colour may be more natural, that dusky blue tint that you so often find may be removed; but so far as the paralysis is concerned you may go on electrifying the patient day after day for a twelvemonth, and at the end of that time find him as much paralysed as he was at the beginning. That is my experience, and it is so with regard to each form of electricity. It is true also whether the paralysis of the limb be complete or incomplete. In direct proportion to the amount of contractility present is the uselessness of electricity. If the contractility be perfect, although the paralysis to the will be absolute, you can do nothing. If the contractility be retained, and be only very slightly diminished, you will very slightly improve the condition of the limb, and very slightly improve its relationship to the will.

(*b*) When the contractility is much diminished, there is much good that you may do, and you will be able to do it by working upon this plan. Use electricity—in such a form as you will select on the principle I shall mention in a moment—till you bring the contractility of the limb up to the normal standard, and, when you have done so, stop. You will usually find that the paralysis is diminished, and in some cases that it is cured. Let me remind you that it is the contractility, and not the power, of the muscle which is to be your guide, and assure you that to continue electric applications when the contractility is normal is to waste your own time, disappoint your patient's hopes, and bring electricity into disrepute.

There are two principal modes in which you may recall the lost contractility—viz., the application of the battery current, and the application of faradisation; either of these will be of service, and you may be guided in your choice between them by considerations of convenience. But supposing that you use the battery current, it must be interrupted. The continuous current for this purpose is of little or no avail.

Supposing that you want to apply galvanism to the arm or the leg in an ordinary case of hemiplegia, where you find the irritability less than in health. The best way to apply the electricity is to take big sponges attached to handles; not little sponges, such as are supplied with some machines, the size of the tip of the little finger, but good-sized sponges, as large as three fingers, a good inch in diameter. The handles should be of such a shape that you can take two of them in one hand, which for certain purposes is very convenient. Supposing it to be the arm that you wish to apply it to, take one sponge well wetted, and put it on the shoulder, over part of the deltoid muscle, with the left hand, and take the other in your right, also well wetted, and stroke it down the arm over the lower part of the deltoid, then down the back over the triceps muscle, and then over the biceps in front, still keeping your left hand upon the deltoid. You need not spend much time over this; a few brushings down, occupying a few seconds, are enough for the arm muscles. For the forearm, bring the upper sponge down to the hollow in front of the elbow, and then give a separate stroke to the muscles here and there over the forearm. In the early days of a case of paralysis of the upper extremity depending on cerebral causes, I should not advise you to waste time, as you would be doing, in devoting much attention to the small muscles of the hand. You may simply take a sponge and bring it down the fingers. In the lower limb you may in the same manner take one sponge and place it on the gluteal region, and with the other work down the limb. What you are doing is this: you are constantly making and breaking the battery-current through the limb by moving the sponge slowly downwards. If you were to leave it in one spot it would be a constantly continuous current through the limb. By moving it you at the same time

bring the current through every point of the muscles, so as to embrace each, from one end to the other, in an interrupted battery-current; and that is what you want to do to waken up its sensitiveness and contractility.

Respecting the use of electricity in this form, you will sometimes see statements made about the use of the inverse current in one case, the direct in another. I have never seen the slightest difference between the two, in their therapeutical effect, upon paralysis; and I have compared them again and again. If the current act continuously, the physiological effect on the nerve does differ in the two cases, the current downwards diminishing the irritability, the current upwards increasing it; but the therapeutical effects of the direct and inverse currents, applied as I have described, do not differ. In speaking of this, let me remind you of another fact which I alluded to in the first lecture—viz., that the current in passing down a limb acts more strongly than it does in passing up it. Supposing we had a Cruikshank's battery here of five cells, and that five cells was the minimum power that would induce contraction in a limb when the current was passing down the limb; you will find that the current from the five cells, if sent up the limb, will not produce contraction. So you must remember this fact in relation to the strength of the current.

So much, then, for the mode of application of the battery-current: a large sponge, well wetted with salt and water, the upper sponge kept pretty steady, the other one moved slowly down the limb along the course of the muscles so as to embrace different portions of muscles in the current, and using a stronger or a milder current according to the direction in which you send the electricity. But whichever form you use, please remember that you are to use such a force as is not painful; and you are to use such a force as will produce contraction. So just stop between the two extremes; do not use so weak a force that it is doing nothing, or so strong a force as shall be doing harm. The best guide for you, until you have had some experience of the individual upon whom you are going to apply it, is to try it on your own hand first; place it on your own hand, and use such a power as shall just to your consciousness feebly move the muscle. You find sometimes that you are more sensitive than your patient, sometimes that he is more sensitive than you; but do not use any strength that hurts you. Whatever hurts a muscle, so far as the sensation of the patient is concerned, positively hurts the patient. Electricity should never hurt people if you want to cure or relieve paralysis. Use such a power, then, as shall be distinctly, but not painfully, felt. I think that too great importance can scarcely be attached to this. I have known electricity so applied to a patient's limb that he or she has almost fainted, and the electricity has done no good. Of course not. The idea of applying electricity to a paralysed limb so as to put the muscle into a state of cramp! That is the most mischievous thing you can do. Instead of waking up a natural action you put it into the most hurtful form of action.

Further, do not prolong the application until the muscle or the patient is tired. If you wear the muscle out, you do it as much harm as when you pain it. A few seconds devoted to each muscle are quite enough, and you may repeat this every day, or you may repeat it every other day, according to the sensitiveness of the patient. It is very much better to repeat it even twice a day, where arrangements for so doing can be conveniently made, than to continue it for a number of minutes at a time, and so distress or weary the limb. If you find that the application of this or of any form of electricity is followed by weariness in the limb, giddiness in the head, pain in the head, a feeling of faintness or of sickness, a nondescript sense of discomfort about the epigastrium, do not go on with electricity at all; cease altogether for a time.

If you are about to use faradisation, there are two or three points to be observed. You are not to tire the patient, not to pain the patient; therefore your application must be brief, and your current of moderate tension. You are to apply faradisation with well-moistened sponges, or buttons covered with wet chamois-leather; because, otherwise, you may irritate the skin, but produce no further action. You are to apply the current to the muscles; but there is a difference in the mode of application of the faradic and the galvanic current. With the galvanic current you may place, as I said, one sponge on the shoulder and the other on the palm of the hand. Do not do that with faradisation, but keep the two poles near together. It is never worth while, and never advisable, to separate them widely. It is a good rule, in ninety-nine cases out of a hundred, to hold both in one hand. There is a double reason for this: one is that you cannot then get them very widely separated; the other is that you have the remaining hand at liberty. If you separate the two poles of a faradic apparatus widely, you are in great danger of giving the patient pain without doing him good, and of upsetting the circulation in his head. If you take a tolerably strong faradic current and apply it to the palms of both hands, you will find very uncomfortable sensations in several parts, especially in the joints, wrists, and elbows; and, if you look, you will see very little muscular action at all. On the other hand, if you put the two poles near together, you will find that you can put the muscles of the limb into tolerably strong action with a comparatively weak current, and without causing any pain.

In the treatment of paralysis it is important for you to bear this in mind. Take both poles in one hand, and act upon all the muscles *seriatim*. Begin with the deltoid, first acting on the anterior set of fibres, then on the middle, then on the posterior; go down to the biceps and triceps, and then faradise the upper part of the forearm. In the first few applications you need not go beyond the arm and forearm; and afterwards, when these are in a better state, it is desirable to pay special attention to the muscles of the hand. In these you want handles with rounded ends, narrow stems, and metallic buttons covered with chamois leather. Make them wet, take the two in one of your hands, and pick out the different muscles of the patient's hand separately, and especially the little interosseous muscles. By groping about you will gain a certain amount of skill, so as to be able to pitch quickly on the particular muscles that you want to influence.

You will find that in both arm and leg there are particular points at which, if you apply your current, you will put the muscles into much stronger action than if you apply it elsewhere. Generally speaking, these points are where the nerves entering the muscles are most superficial; knowledge of anatomy will help you to find these points, but there is sufficient variation from these to make it necessary for you to examine the question electrically, and to discover for yourself—even in special cases—the points through which the current may be sent with the greatest efficacy.

Sometimes you will find curious actions which you cannot very readily explain. For example, in faradising the peroneal muscles and the tibialis anticus, by applying one pole just behind the head of the fibula, you may, by placing the other pole above the knee, on either side, raise the heel from off the ground or the bed, by calling the psoas and iliacus muscles into action. I have seen the foot raised from eight to ten inches from the floor in this manner by a patient who could not lift the heel higher than two, or at the most three, inches by the extreme of voluntary effort.

Now, what do you do when you apply electricity in this way? You may restore, if it be lost, the nutrition of the muscles: you bring back their bulk. If the limb be cool, as it very often is, from the defective circulation, you may bring back the normal temperature. When the contractility has been defective, you bring that back to its normal state, and you will find then that you have very much improved the relationship of that limb to the will of the individual—that is, you *pro tanto* improve, or it may be entirely cure, the paralysis. The mode in which electricity produces this effect, so far as we can understand it, is this. A limb has been out of use for a certain time; its muscles and nerves have lost their nutrition, and their readiness to act; and the application of electricity has quickened the circulation and restored the diminished function of those tissues. We may, I think, go still further, and affirm that, in some instances, much more is accomplished than this merely peripheral effect. By stirring up the muscles and nerves of a limb you may to a certain extent act upon the other ends of those nerves—the ends that are in the back or head—and so you may improve, by careful usage, the nutrition of the spinal cord, or of the brain. There can, I think, be no doubt of the reality of this secondary result. It is obvious that faradisation of the extremity may seriously derange the circulation in the head; and it is no less clear that its

application may be followed by results which a change in the conditions of the limb will not explain.

4. There is another point, gentlemen, to which I will call your attention, and that is the condition of "rigidity" in a limb in cerebral paralysis. It is common enough in old cases, and sometimes is met with in those that are quite recent. In the latter cases I advise you not to use electricity, for you may do harm; in late rigidity, you may employ it without fear, and with considerable advantage. Here you may either remove the rigidity altogether, and also improve the contractility of the limb, or you may only diminish the rigidity, or prevent its increase. It often happens that in a case of three or four months' duration you find the flexor muscles beginning to contract, so that the patient, waking up from sleep, in the night or in the morning, always finds his fingers bent, and the forearm prone, the flexure soon passing away again by a little rubbing or passive movement. After a time, although the hand may still be opened, it shows a constant tendency to close when it is left to itself, and at last the closure gradually becomes habitual. Now, the best way to counteract this tendency to closure is to faradise the antagonist muscles, the extensors of the fingers, and supinators of the forearm. Under such circumstances, you need not begin at the shoulder, because contraction of the kind I have been speaking of always begins at the distal end. You do not notice rigidity of the elbow till some time after you have noticed it at the wrist, nor do you observe rigidity of the wrist until after that of the fingers has been conspicuous. Sometimes in an early stage a few applications of electricity will cure the rigidity, and not only remove the tendency to cramp, but even bring back the proper contractility of the limb. But in more severe and protracted cases, in which there is some persistent, and often progressive, lesion of the head, you cannot cure the rigidity—i.e., you cannot remove it altogether; but, even in these cases, you may sometimes do good. You may prevent it from getting as bad as it would do if left alone, and this is a very important thing to do; for, after a longer time, the rigidity becomes extreme, and the patient often refuses to submit to any treatment. Then it is found that the nails have dug into the hand, and that the pent-up perspiration has become fetid and disgusting. It is impossible to prevent the occurrence of sores in some cases, except by a timely electrification of the extensors. You may often call into action the extensors of a much weakened hand by applying a moderate faradisation with well-wetted sponges to the back of the forearm, or you may use galvanisation for the same purpose, interrupting the current in the manner I have described—viz., by putting one sponge on the back of the forearm over the skin well wetted, and making and breaking the current with the other hand by moving the sponge upwards and downwards an inch or two below the upper pole. But faradisation is much better for this purpose than is the battery current, although the latter may be used to assist the former by applying it, in a continuous form, to the rigid and overacting muscles. For this purpose the current should be direct; one pole, well wetted, should be placed in the hollow of the elbow, and the other in the hand. A moderate current should be allowed to pass continuously from the upper to the lower for ten, fifteen, or twenty minutes, once or twice daily, according to the severity of the case. You faradise the extensors, and galvanise the flexors of the hand and fingers; and you may, if the rigidity has extended higher, adopt a similar plan with regard to the muscles of the forearm or the arm.

5. Shaking movements sometimes occur in cerebral diseases, and may take the form of mere tremulousness, or of clonic spasm. In these cases relief may be given by two forms of electricity. It may be given by static electricity, charging the patient generally with positive electricity, and leaving it there, having previously placed him on a glass-legged stool. Or you may pass a continuous current, of low force, through the tremulous limb. In this case the best way of applying it is to place the patient's feet into a pan of salt-and-water, to put the pole from the negative end of the battery into the water, and then let the patient's hand be placed in a basin of salt-and-water connected with the other pole. The current will then come up the leg and down the arm; and you will find that in many cases of tremor or clonic spasm accompanying paralytic conditions dependent on cerebral disease, this continuous current affords marked relief.

ON FRACTURED RIBS IN THE INSANE.

BY S. W. D. WILLIAMS, M.D.,
MEDICAL SUPERINTENDENT OF THE SUSSEX LUNATIC ASYLUM, HAYWARD'S HEATH.

Two patients having died in the Sussex Lunatic Asylum lately, in the first of whom two ribs were fractured, and in the second one, very careful inquiry has been instituted as to the cause of these fractures. Remembering how much the public mind has of late been disturbed by the report of improper treatment in lunatic asylums, it has struck me that the cases are of sufficient importance for a *résumé* of the investigations and their results to appear in THE LANCET. In both cases, although death had resulted from natural causes, I applied for an inquest, and in both I obtained the valuable aid of Dr. Ormerod, physician to the Brighton Hospital, and Mr. Jowers, surgeon to the same hospital, in making the pathological examinations, and in giving evidence at the coroner's inquiry.

CASE 1.—S. L——, wife of a labourer, aged fifty-nine years, looking sixty-nine; never had any children; suffered much from menorrhagia thirteen years ago for three or four years, and has never recovered her former health, but remained weak, thin, and unfit for work.

State on admission (July 2nd, 1870).—Mentally she was in a state of melancholia of a very distressing character. Physically she had all the appearance of a person who was, or had been, suffering from some exhausting disease. She was painfully thin; her features were blanched and sharp, and her hair perfectly white.

Progress of case.—On the day after admission she became more excited; delusions gained possession of her that she was too wicked to live, and that she was unfit for anyone to approach her. She would throw herself violently on the ground, and cry and whine, and unless constantly watched would undoubtedly have seriously injured herself; yet, withal, she would do as she was told, and seldom or never resisted the nurses. She also refused to eat any food, but would drink liquids when they were held firmly to her mouth.

She remained in much the same state as this mentally, but getting physically weaker, until the 14th, when she became so extremely restless that it was necessary to place her in the padded room for some hours. During the time she was there, she employed herself in pulling the bed to pieces and lifting the floor pads about, fancying that she heard some one in the floor. On the 15th she was rather quieter. On the 16th she seemed much better mentally, but weaker physically; and she complained of tenderness in the chest on the right side. On examination, this tenderness was found to be due to a fracture of the fourth and fifth ribs, about an inch from the junction of the bone with the cartilage. On the 17th she was attacked with diarrhœa of a most intractable character, and which continued almost without abatement, and notwithstanding most active treatment, until the 26th, when she died from exhaustion. During the week previous to her death, a carbuncle formed on one shoulder, and an abscess under the right jaw, adding much to her debility.

Every possible inquiry was made, both when the injury was discovered and after her death, as to whether she had been ever ill-used, but without the shadow of a suspicion of any improper treatment being able to be detected. She herself, during a lucid interval some days before death, told me that she believed she hurt her side lifting the pads about in the padded room on the 14th, when she thought a man was in the boards.

A coroner's inquest was held on the 27th of July, and, after several hours' careful inquiry, the following verdict returned:—"That deceased died from exhaustion from diarrhœa, accelerated by a fracture of two ribs on the right side; and the jurors further say that such fracture of the ribs was occasioned by the action of the deceased, and is not attributable to improper treatment or neglect of the deceased by the officers or attendants of the asylum."

The only evidence I need trouble the readers of this with is that of Mr. Jowers. It was as follows, and is copied out of the *Sussex Express*:—

"Mr. Frederick William Jowers deposed: I am a surgeon to the Brighton Hospital. I was present at the examination of the body of the deceased this morning. The outward appearances were those of an ill-nourished and very feeble old woman. There was a carbuncle on the right shoulder, and an abscess below the lower jaw. There were no signs of bruising or violence of any kind. On examining the chest, two ribs were found broken on the right side. There was a slight amount of inflammation of the lungs and pleura in the neighbourhood of the fracture. The bones were excessively brittle, so much so that with a slight pressure of my thumb I broke one rib on the left side. Those were all the appearances worthy of note. The heart was feeble and soft, and every other organ in the same state. I attribute death to exhaustion consequent on the diarrhœa. I have no doubt the fractured ribs contributed to her death, but there was nothing about them which in a strong and healthy person need have shortened life. My opinion is, that in one of her falls, or more probably by muscular action on the night of the 14th in lifting the pads about, these brittle ribs gave way. There were no external marks where the ribs were broken. At this distance of time I should not expect to find any."

CASE 2. — J. C——, aged forty-six years, widowed; an innkeeper. His insanity, which had been coming on for some time, was supposed to be due to drink and dissipation.

State on admission. — He had the usual symptoms of a person suffering from the second stage of general paralysis of the insane. Mentally he was bordering on dementia; and, although he looked stout and well nourished, he was very helpless, falling about whenever he attempted to move, and generally exhibiting a marked want of consentaneity in the use of his muscles.

Progress of case.—After admission he became very restless and excitable; and every other day for some time he suffered from an exacerbation of the mental symptoms, and it would then be necessary to seclude him in the padded rooms, otherwise, as he was so restless and helpless, he would have come to harm. On the 28th he was extremely excited in the morning; but towards midday a change took place, and he gradually lapsed into a state of coma, from which he never rallied, but died on the evening of the 29th. When this fatal change first took place he was carefully examined, and by chance a fracture of the sixth rib on the left side, about half an inch from the cartilage, was detected. There was no displacement of bone, and not a trace of any bruise or injury to the soft parts, either in the neighbourhood of the fracture or in any other part of the body. Mr. Jowers again made the post-mortem examination, and Dr. Ormerod carefully examined the bones microscopically. I append their evidence as given before the coroner, and as it appeared in the *Sussex Express*:—

"Mr. Frederick William Jowers, surgeon, of Brighton, and one of the surgeons to the Sussex County Hospital, deposed: I was present at the examination of this patient on the afternoon of Friday last. There were no marks of bruises or violence to be seen on the body. On examining the chest, there was found a simple fracture of the sixth rib on the left side. The skin, the fat, and the muscles overlying this fracture were in a perfectly healthy state, as were also the lining membrane of the chest inside, the covering of the lung, and the lung itself. What I mean to express is, that there were no signs of violence. There was no displacement; the bones were lying in their places. The ribs were remarkably brittle, snapping like a dry twig upon the slightest pressure. My opinion is this fracture was caused by some irregular muscular contraction, acting suddenly upon this diseased rib, and that the fracture had nothing at all to do with the death. I have no doubt, having heard Dr. Williams's evidence, that deceased's death was due to natural causes. I might add that these cases of fracture from muscular action are not unknown to surgeons. I once attended a gentleman in Brighton who broke his arm from simply tossing some biscuit to a boy; also a lady who broke her leg from turning in bed.

"Dr. E. L. Ormerod, physician at Brighton, deposed: I have examined a portion of one of the ribs of deceased. The bone was to all appearance healthy on a general examination, but there was a crack across it near the sternal end. The crack was on the outer side. The bits of bone were exactly in position; and on bending it more to examine this crack, I heard it extend, showing that the fracture was not quite through. The appearances inside the bone were very like those which I had seen in the ribs of the patient who had died here a few days before. The changes in the last specimen were not so far advanced as the previous one; but they were essentially the same, consisting of the removal of the internal structure of the bone, leaving only a thin outer shell of bone, which was to a greater or less extent infiltrated with fat and in the process of degeneration. I have no doubt that the fracture of the bone arose from its great brittleness, rendering it liable to be broken from causes quite insufficient to break a healthy bone. From the position of the fracture, occupying the outside of the bone, I do not think it could have arisen from direct local violence; I think much more likely from muscular action. Even healthy bones will break from such a cause. I have seen the thigh of a racehorse broken from such a cause. The disease which appeared in these two patients is well known to anatomists as mollities ossium, occurring in the subjects of any exhausting diseases, as cancer or after childbirth. It is not generally known to occur in insane patients, nor is it known whether it is confined to the ribs in them; probably not."

The verdict in this case was as follows:—"That deceased died from natural causes on the 28th of July, from general paralysis of the insane: that he received every attention while in the asylum; that he had sustained a fracture of the sixth rib, but it arose from the diseased state of the bone, and was not attributable in any way to the neglect or improper treatment on the part of the officers or the attendants of the asylum."

Remarks.—I cannot but think that the history and examination of these two cases will not only go far to explain the frequency of fractures of the ribs in asylums, but may also to some extent help to relieve the press and the public mind of some of the doubts that have lately been expressed as to the treatment of lunatics in asylums. I would not, however, wish it to be inferred that I think the treatment of patients in asylums perfect. Far from it. Where do we find perfection? Neither can I for a moment subscribe to the, to me, absurd hypothesis that lunatics' ribs are more brittle than other people's. But here are two cases in which, after most careful and separate investigations by the visiting justices, the coroner, and myself, not the slightest ill-treatment can be detected. Indeed, neither of the patients was of the class of cases likely to be ill-used, as neither of them was ever violent, and the only trouble they gave was from their fears and helplessness. And yet one had two ribs broken, and the other one. The explanation of this is, I think, clear. The woman had suffered from an exhausting disease some years ago, and had been a confirmed invalid ever since. The man had had syphilis severely, had been a drunkard, and was in an advanced stage of general paralysis. They were, therefore, both cases in whom we might expect to find the state of bone Dr. Ormerod has so minutely described to us in the *British Medical Journal* of September 10th, 1859. This, after careful examination, Dr. Ormerod himself fully bears out; and I also can from personal observation bear testimony to. As Mr. Jowers said, the ribs of the woman snapped like a dry twig, and I saw him push a small scalpel through a rib of the man almost as easily as if it had been only a shell. Therefore, the diseased state of the bones being allowed—and I think that after such experienced evidence as Dr. Ormerod's that cannot be disputed,—I consider we may be fully justified in reasoning that a small amount of force during life might have broken the ribs of these patients, and that it is quite possible, remembering the very restless, aimless ways these poor creatures had, the fractures may have been due to irregular muscular action. Indeed, it must be remembered that the woman ascribed her injury to such a cause, distinctly telling me, as I have already stated, that she did it on the night of the 15th of July, when lifting the heavy pads about in the padded room.

I have purposely refrained from detailing the medical treatment pursued in these cases, thinking it foreign to the point at issue, and that it would only tend unnecessarily to swell the bulk of this communication.

I believe Dr. Ormerod contemplates writing a paper carefully describing the pathological changes he has detected. Such a paper cannot fail to be of great interest.

Hayward's Heath, August, 1870.

SOME REMARKS ON

CHRONIC CONGESTIONS OR ENGORGEMENTS OF THE UTERUS, LEADING TO DISPLACEMENT; AND THEIR TREATMENT BY LOCAL DEPLETION.

BY ALFRED HALL, M.D. EDIN.,
LATE SENIOR PHYSICIAN TO THE BRIGHTON AND HOVE DISPENSARY.

IN a brief note published in THE LANCET of the 13th inst. I stated my satisfaction that Dr. Alfred Meadows, from his report of an interesting case of retroversion of the uterus (in the previous number of that journal) cured by "local depletion alone," had independently arrived at the conclusion which I had come to, and practised upon for many years, as to the true character and treatment of certain displacements of the uterus; in corroboration of which I purposed briefly reporting in THE LANCET a few cases from my note-book. Before, however, commencing to give the details of these cases, I will shortly state the circumstances which induced me to adopt the method of local depletion of the uterus by means of the lancet, in preference to the application of leeches.

When elected physician to the Brighton and Hove Dispensary, in the year 1855, I was struck with the number of women suffering from uterine maladies, which appeared to depend in a great measure, if not entirely, upon congestion or engorgement of the uterus; and as the application of leeches would involve not only considerable outlay to the institution, but much difficulty and expense in their employment, I determined to see if as much relief could not be obtained in such cases by free puncturing of the uterine cervix with a very fine lancet, affixed upon a long handle, so that it could with facility be used through the medium of the glass speculum of Ferguson. Mr. Coxeter made for me such an instrument, and I have continued to use it in nearly all cases where local depletion was required for the last fourteen years.

This lancet is very finely constructed, and about one-third the width of the ordinary lancet for venesection. It is made to screw into an ebony handle about seven inches in length, and when not in use is protected from injury by a cap which screws over it like that of a caustic-holder, and which, on removal, can also be screwed on to the lower end of the handle, thus lengthening the latter for use nearly two inches. This uterine lancet can be seen at Mr. Coxeter's, near University College Hospital, and also a small case for holding spare lancets.

With this instrument I usually make from four to six punctures, varying from an eighth to a sixth of an inch deep, into the congested lips and adjacent parts of the cervix uteri, and promote the discharge of blood from the punctures by the frequent injection of warm water through the speculum by a glass or vulcanite syringe. Very little pain is produced by the punctures; often, indeed, so trifling that the patient is unaware at the time of the nature of the operation.

The benefit of this treatment is often experienced by the patient before she has risen from the operating couch, and after a few repetitions—at intervals of five or seven days—long-standing cases of uterine congestion and (so-called, but often mis-named) uterine ulceration have been permanently cured; and I do not hesitate to declare that I have never witnessed any ill-effects result from this mode of depletion of the morbid uterus. I adopt it in my private practice, and never have recourse to leeches, unless the prejudice of my patient to the use of the lancet in this form cannot be overcome.

Usually those cases of uterine congestion which, in my opinion, demand depletion are associated with an abraded or granular state of the cervical lips—mistaken very frequently for ulceration,—and for which the ordinary treatment is the application of caustic or nitrate of silver; but so thoroughly does this *so-called* ulcerated state depend upon engorgement or congestion of the uterus, that I have frequently seen it cured by the local abstraction of blood *alone* in the manner above indicated. I have also used this method of local depletion in the early stage of the affection known as "pelvic cellulitis"; and I hope to be enabled to publish the notes of two or three such cases where the inflammatory condition appeared to have been arrested by this plan of treatment adopted almost exclusively; and in other similar cases, but where the disease was more advanced, I have grounds for believing that the subsequent suppuration was of less extent, owing to the local depletion.

In endometritis, whether specific or not, I have also employed this remedy preparatory to other treatment, and I have felt convinced that the disease was thus rendered less severe, and its subsequent course much shortened by it, and thus probably prevented from spreading through the Fallopian tubes, and involving the broad ligaments and ovaries in the affection.

I do not presume to claim any originality in advocating local depletion of the womb by the lancet or knife, but to testify to the importance of my method by deep puncture in preference to the plan of scarifying the surface of the congested cervix, by which only the superficial vessels are unloaded.

I will now, without further preface, briefly describe two cases of uterine displacement which were cured by this method of local depletion with the lancet.

Prolapsus uteri.—The first was a long-standing case of prolapsus uteri. The lady, thirty-one years of age, consulted me on the first occasion on the 15th August, 1859. She stated she had suffered from the affection for nearly ten years, ever since, indeed, the birth of her only child, now nearly ten years of age; and it appeared to me, from the description she gave of the symptoms she experienced about a month after her confinement, that the prolapsus was due to imperfect involution of the uterus, upon which a chronic inflammatory condition and hypertrophy of the organ resulted. She had never again been pregnant, and her catamenia, though usually regular in returning, were occasionally very profuse and menorrhagic in character, and at other times very scanty. The sense of bearing down was so distressing that she usually wore a perineal band for support, and even with this she could not walk a hundred yards without distress and a feeling of faintness. Her husband was an Indian civil officer, her child being born in Calcutta, but during the preceding ten years she had been obliged to come to England on three occasions for the benefit of her health, in the hope of being cured of the "bearing down of the womb," as she termed her malady. She had consulted many men of eminence without receiving any positive or permanent benefit, and at the time she called upon me—from Southampton—she was on the point of returning to India, hopeless of ever being cured; but on the eve of embarking she received a letter from her husband, who was in Calcutta, desiring her to consult me before going out, and if necessary to remain under my professional charge for some time. She came to Brighton, and I saw her for the first time on the 15th August, 1859, as before stated. On examination I found the os uteri low down, within an inch of the ostium vaginæ, and the whole cervix and body of the uterus exhibiting evidence of long-standing hypertrophy. The speculum indicated an engorged state of the cervical tissue, with swollen granular lips, and slimy mucous discharge issuing from the os uteri. The uterine sound determined a depth of three and a half inches of the uterine cavity, and, from the pain in introduction and the blood which followed its withdrawal, it was evident that chronic endometritis complicated the case.

I depleted the womb in the way I have described in the first portion of this paper, and had the satisfaction of being told by my patient that she felt relief even before leaving my house.

Two days afterwards I again saw her, and she assured me that she was still feeling the benefit of the treatment.

On the 22nd of August I repeated the depletion, and for three months subsequently every fifth or seventh day, allowing an interval of three days before the expected monthly epoch, and from three to five days afterwards. Her improvement was steady and progressive, and I had the satisfaction of pronouncing her quite cured on the 28th of November.

She returned to her husband in Calcutta in the following month; and in the ensuing spring (May, 1860) I received a letter from her stating that my prophecy that she would again become a mother was likely to be fulfilled, as she was then nearly three months advanced in pregnancy, and that

her husband had determined that she should return to Brighton to be attended by me in her accouchement. She consequently came to Brighton in the summer of 1860, and I delivered her on the 24th of November of a fine boy at full time, which she was enabled to nurse.

I may merely add to this report of the treatment, that the only medicine prescribed during the time was sulphate of magnesia in infusion of roses, as a gentle aperient; and the only additional local application consisted of a solution of nitrate of silver (two scruples to one ounce of water) to the abraded uterine lips and congested canal of the cervix, though I truly believe these conditions would have subsided without such application.

It was the improved state of health of the previous case, on the lady's return to Calcutta, which induced the husband of the following case to bring his wife to Brighton to be under my professional care.

Retroversion of the uterus.—Mrs. C——, a delicate-looking person, thirty-six years of age; married five years; *never pregnant*; catamenia, both before and since marriage, always painful but regular, with the exception of a period of four months during which they were absent owing to an attack of dysentery in Calcutta. She states that ever since her marriage she has suffered from pain in the region of the womb and lower part of the spine, with more or less leucorrhœal discharge and irritability of the bladder. She has been treated both in India and in England for uterine malady, but without any positive benefit; but the improved health of her friend Mrs. S——, the subject of the preceding case, determined her to consult me, and she came to England for the purpose.

On examination I found she was the subject of retroversion of the uterus, complicated with retroflexion of the cervix; but I thought it probable that the latter condition might have been consequent upon the protracted existence of the former. The cervical tissue was very sensitive to the finger, and its tissue thickened; the surface was purplish, and the lips of the os uteri abraded and granular-looking. On separating the lips of the os the cervical canal was observed to be very vascular, and on the inner edge of the anterior lip a small polypoid growth was perceptible, which I removed with the polypus scissors, free bleeding resulting. On using Simpson's sound much pain was induced, the interior being highly sensitive, and on withdrawal of the instrument blood followed. The depth of the uterine channel was nearly three inches and a half. Notwithstanding the flow of blood by the excision of the small polypus, I nevertheless felt it necessary to deplete still further the congested organ by puncturing it. As in the preceding case, my patient felt relief before she left my consulting-room. No medicine whatever was prescribed, as my patient had grave repugnance to physic, and, as she was in the habit of using cold water enemata when constipated, I did not think it necessary to insist on any other aperient.

My patient's first visit to me was on the 21st April, 1860. On the 25th April she again saw me, and assured me she felt much better. However, I repeated the local depletion with still further relief. In consequence of the sudden illness of a relative in the north of England she was obliged to leave Brighton at this time, and I did not see her again until the 19th June following—a period of nearly two months. She then assured me that though she had undergone much fatigue at the bedside of her sick and dying relative, she, notwithstanding, suffered less from her uterine ailment; and certainly her appearance was more healthy. The uterus also was less congested, and its position more normal, and the cervix was not so sensitive to the touch.

Blood was again abstracted with the lancet. On the 25th June improvement was steadily going on. Bleeding by puncture to the extent of half a fluid ounce was nevertheless practised.

On July 2nd my report states:—"Has been steadily improving. Uterus resuming its normal position. Uterine lips and cervical canal much less vascular." From this time (July 2nd) until August 13th the case progressed most satisfactorily, but on the latter day she took a long walk over the Brighton Downs, ascending a considerable hill, and in consequence she had a return of pain in the pubic and sacral regions, extending down the thighs. The removal of blood locally on the 20th gave her much relief, and on the 1st September she was sufficiently strong and well to walk without fatigue a distance of two or three miles, though at the time she first consulted me she could not walk a hundred yards without subsequent pain and distress.

On September the 5th the uterine fundus had assumed nearly, if not quite, its normal position, and the uterine sound indicated a depth of two inches and a half only, instead of three and a half, as at her first visit to me. There still existed, however, a slightly retroflexed state of the cervix uteri, which I considered, if not removed, might occasion a recurrence of her former condition as well as prove a bar to impregnation. I therefore introduced a sponge tent, removing it the following day. Some pain attended its presence in the uterus, but soon subsided after withdrawal. No further treatment was on this day undertaken. On the 12th September, finding that the retroflexion was less, I introduced a second tent with additional benefit, and on the 25th September my report in my case-book is as follows:—"This patient is quite recovered. The uterus has been materially straightened by the use of the sponge tents, and she has quite lost all uneasiness and bearing-down sensations in the uterine region." I consequently discharged her cured.

On the 20th November she returned with her husband to Calcutta; but I had the satisfaction of learning from her husband that this lady was safely delivered of a child, at the full time, on the 14th of July, 1862, which, unfortunately, was born dead; but she again became pregnant, and her husband had the great satisfaction of communicating to me her delivery of a living daughter at the full time on the 21st March, 1864. I probably may be pardoned the following quotation from the husband's letter:—"I need not say how very happy we both feel, and how grateful to you for your kind care and skilful treatment of Mrs. C——'s case."

Old Steyne, Brighton, August 29th, 1870.

ON DISLOCATIONS OF THE WRIST.

BY HOLMES COOTE,
SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, ETC.

To the question, which is so often raised, Do we meet with cases of dislocation of the wrist in practice? the correct reply is, almost without exception, that under that head have been described instances of fracture, impacted or otherwise, of the lower extremity of the radius. In the museum of the hospital (Series iii., No. 78) we have the radius of a young man which had been broken three-quarters of an inch above its carpal articular surface. The posterior or dorsal margin of the upper fragment is driven into the cancellous tissue of the lower one. Their palmar margins are in contact, but a projecting angle is here formed at the line of fracture. In another specimen the projecting angle is on the dorsal aspect (No. 89). In other cases (Nos. 94, 95) the line of fracture is just above the epiphysis.

But in speaking of the "wrist" let us inquire what is meant by the term. If we refer to the movements of the hand we must include at least six articulations. (1) The rotation-joint, or that between the radius, ulna, and interarticular fibro-cartilage. (2) The flexion-joint, or that which allows the hand to drop towards its palmar aspect—namely, between the radius and interarticular fibro-cartilage on one side, and the scaphoid, semilunar, and cuneiform bones on the other. (3) The extension-joint, or that which allows the front of the hand to be raised towards the dorsal aspect—namely, between the scaphoid, semilunar, and cuneiform bones on the one side, and the trapezium, trapezoid, and magnum and cuneiform on the other. (4) That between the pisiform and cuneiform bones, which favours palmar and volar flexion. (5) The carpo-metacarpal joints, in which the movement is very limited. (6) The trapezio-metacarpal joint, which gives to the thumb the freedom of action of a ball-and-socket joint, and enables it to be brought into every degree of opposition. The arching of the hand downwards is a combined movement of all the joints, including that at the bones of the forearm.

That dislocations are uncommon is due to the fact that

the bones are small and numerous, the ligaments and surrounding tendons are strong, and it is not easy to apply such a degree and direction of force as will cause such an accident in preference to fracture. When dislocations do occur, they are mostly combined with laceration of the soft parts, being caused by severe machinery or gunshot accidents. The displacement of the bones then becomes of secondary consideration.

In combination with such severe injuries, the following dislocations have been observed. (*a*) Dislocation of the radius forward or backward, the ulna remaining attached to the carpus. (*b*) Dislocation of the ulna forwards, backwards, or inwards, the radius remaining attached to the carpus. (*c*) The tearing away of the carpal bones from the forearm. (*d*) Dislocation of the first and second row of carpal bones. (*e*) The scaphoid, pisiform, magnum, and trapezium have been dislocated separately. (*f*) Dislocations of the thumb are well known; it may be thrown backwards, forwards, or towards the index-finger.

In speaking, then, of dislocation of the wrist we must take into consideration the whole set of articulations. Such accidents are very uncommon, except as associated with severe compound fracture and laceration.

Margaret-street, Cavendish-square, 1870.

ON THE

LOCAL AND SPONTANEOUS ORIGIN OF ENTERIC FEVER.*

BY CHARLES E. PRIOR, M.D.

(*Concluded from p. 290.*)

WE trace small-pox not unfrequently from house to house and from village to village, scarlatina and typhus with a little more difficulty, enteric fever with still more; and yet that enteric fever is a contagious disease has, I think, been already proved, not only by the essays of Gendron and Piedvacke, but to a minor extent in a paper which I had last year the honour of reading before this Society, and by the admission and experience of practitioners of reputation in this district.

How and where these diseases commenced their dismal pedigree is buried in the mists of time—beyond, perhaps, the age of flint weapons, ere yet the troubles of Israel or the plagues of Egypt had begun. Small-pox, we know, existed in China before historical records; deserts and want of communication, a horror perhaps of its ravages, barred for centuries its passage to Europe. Of typhus and enteric fever, whose nature is only just ascertained, and whose characteristic eruptions with their differences have scarcely yet fixed themselves in the professional mind, we have no reliable record as to their origin. It is enough for my purpose that they belong to the same group of exanthemata, and are subject to similar laws. We have no more right to infer a spontaneous origin for enteric fever from the analogies of exanthematous disease than we have to assume a new creation in a freshly discovered insect. Spontaneous generation has been assumed for measles produced by the dust of a certain vegetable during the American war. I have not the account at hand, but I believe it rests on the authority of Dr. Richardson. Such a statement needs close investigation, and, in the absence of that, I must express my decided conclusion that the analogies of nature and the study of kindred disorders are all evidences against the spontaneous generation of enteric fever.

But there is yet another side to this branch of the question. Some febrile diseases are of spontaneous origin—of local origin. Granted. What are those diseases? Have they any peculiar characteristics? Do they differ in any way from the exanthemata? They have; they do so differ. Intermittent and remittent fevers form a group by themselves: their origin in malaria is unquestionable. The non-connexion of that malaria with foul odours or organic refuse has been repeatedly demonstrated. It has been found in its most deadly form on the barren sands of the Tagus, or the rock of Gibraltar; in the stony ravines of India, where scarcely a blade of grass can grow, or a trace of organic matter exists. I have myself met with it in the elevated valleys of the Malvern range. It is the specific gravity of malaria alone that indicates its existence; to chemistry, to smell or to vision it is alike unknown.

It is the characteristic of the fever of ague and of the paludal form of yellow fever to be incommunicable by contagion, nor have they any typical eruption; in fact, their non-contagion would appear to be almost a law of nature for the preservation of our species. Were it otherwise, in the words of Dr. Bancroft, "every dunghill, every collection of decaying animal or vegetable matter, might become the source of a fresh contagious and pestilential disease, and mankind, surrounded by such accumulated perils, would soon cease to exist."

Never having seen a case of yellow fever, or resided in a hot climate, I speak with diffidence on the subject. It would appear, however, that there exists in tropical latitudes a certain specific form of the disease, communicated by contagion and continuous in type. If this be so, it may eventually turn out to be a disease having the same relation to the paludal disorder that our own enteric fever bears to ague. Possibly, with further research a typical eruption may be discovered. Be this as it may, the grand fact remains, that in England at least, and probably in other countries, the intermittent fevers of local or paludal origin are non-contagious and non-eruptive.

It would be begging the question to say that the converse of this is true—namely, that eruptive contagious fevers are not of local origin; but this much may be granted—(1) that they are not of paludal origin; and (2), a point which I have discussed with some minuteness, that enteric fever is beyond all question a contagious disease.

"Typhoid fever," says Piedvacke (p. 124), "reigns everywhere—in the dwelling of the rich as in that of the poor, in places low and damp as in places high and dry, in town as in country." Again: "Pathological observation teaches us that the affections which are the product of external and well-demonstrated causes are but very rarely, perhaps never, contagious. A simple enumeration would be sufficient to prove it." (p. 17.) Again: "Some local epidemics have appeared produced by emanations disengaged from vegetable and animal matters in putrefaction. But it is easy to demonstrate that the most part are independent of this cause. Hygiene has hitherto made little progress in the country. One often finds there dunghills before the doors and stinking water; dirt reigns in a great number of rural habitations. But typhoid fever is not in conformity with these circumstances: one sees it in houses rendered, by position and arrangement, most salubrious; in high places as in low, in town as in country." (p. 22.)

To this the experience of M. Gaultier de Claubry, in his report to the Academy (1848-49) on the epidemics of France, corresponds, and the testimony is of great value, as it comprises the experience of 162 communes in 28 departments, and of 122 separate reports on nearly 10,000 cases. "Relatively to the conditions of topography," says he, "the situation of places has thrown no light on the causes of the disease. A similar remark is applicable to the state of salubrity or of insalubrity of the villages where the disease has shown itself, as also to the variable degree of ease or of misery of the population who inhabit them. Singular as such an assertion appears, it is the rigorous expression of the numerous facts contained in the reports."†

There yet remain for consideration two branches of the argument—namely, the argument from experiment, and the argument from experience.

Experiment.—The late Dr. Barker of Bedford endeavoured, by exposing animals for shorter or longer periods to cesspool air in a box constructed for the purpose, to ascertain the connexion between the gaseous products of fæcal fermentation and certain febrile diseases. Four dogs and a mouse were thus exposed. In all the dogs diarrhœa and vomiting, more or less severe, set in; but all the animals, with the exception of the mouse, recovered. Beyond the symptoms named, there was no reason to suppose that the disorder produced was any stage of enteric fever.

Other observers and the same gentleman also have exposed animals to various gases the products of decomposition—namely, sulphuretted hydrogen, carbonic acid, ammonia, and sulphide of ammonium.

Fifteen experiments on sulphuretted hydrogen are re-

* Read, Oct. 1868, before the S. Midland Branch of the B.M. Assoc.

† Acad. de Méd., vol. xiv., p. 4 (1849).

corded by Dr. Barker and by Dr. Richardson, performed on dogs, hedgehogs, and birds. In most of the cases accelerated respiration, jactitation of the muscles, tremors, insalivation, and disorder of the bowels appear to have ensued, passing, if the experiments were pushed further, into narcotism, coma, and death. Careful post-mortem examinations were made in several of the cases, but in none was the characteristic intestinal lesion of enteric fever discovered.

Of the well-known effects of carbonic acid it is unnecessary to speak.

Dr. Barker also made eleven experiments on sulphide of ammonium introduced into the box containing the animals (dogs, jackdaws, and hedgehogs). General distress, lachrymation, diarrhœa, and salivation were the principal symptoms produced. Two dogs and one bird were poisoned, and their bodies were examined after death. There was nothing in the post-mortem appearances characteristic of enteric fever.

It appears to me that there is one grave deficiency which vitiates all these experiments. It is this: we have no evidence that any of these animals are susceptible of typhus or of enteric fever. In fact, I never heard of any domestic animal that had contracted the disease, unless it be the pig; and surely, if the local origin of enteric fever be not a myth, the conditions of piggy's existence ought to be causing daily victims.

The only animal in whom enteric fever can be studied is man. To experiment upon the human species is out of the question; and therefore it only remains for us to select from the records we possess those histories of the exposure of a healthy population to the products of decomposition supposed to be most capable of generating enteric fever, which, from their scale and circumstances, realise most fully the conditions of an experiment. Such a history is that of the removal of the Cimetière des Innocens at Paris in 1785—a space of two acres, which contained the remains of at least half a million of bodies in various stages of decomposition, yet which was carried out during two years without the slightest accident or any appearance of epidemic disease among the workmen. Such again is the great stink—if I may so term it—of 1858, when the Thames became in such a revolting condition as led to the enormous works of the metropolitan main drainage; yet, according to the testimony of Dr. M'William and others, the health of the police employed on the river, and of the population along its banks, was absolutely unimpaired, and no epidemic ensued. Such too is the history of the horrible Montfaucon, whose vile odours, arising from the bodies and refuse of thousands of dead horses, dogs, and cats, and from large pools of excrement collected from the entire city of Paris, were perceptible at two miles' distance, and were absolutely insupportable on the spot to the uninitiated; and yet, according to the testimony of Parent du Chatelet, the workmen employed there enjoyed the most robust health, and their families have shown no peculiar tendency to enteric fever. Beside observations of this magnitude, a few experiments upon animals with poisonous gases sink into insignificance.

It has been conjectured that sulphide of ammonium may be the peculiar deleterious agent which produces enteric fever. But nothing in the way of proof exists: no animal which has been exposed to the vapour has shown the usual symptoms of the disease after the ordinary period of incubation. In fact, I think myself justified in saying that the experimental proof of the spontaneous origin of enteric fever utterly breaks down.

Experience.—The last appeal lies to that most fallacious of all tests, "experience."

Many cases from many authorities have been cited in illustration of the spontaneous generation of enteric fever from fæcal fermentation, vegetable decomposition, and foul odours of all sorts. The late Dr. Barker collected thirty-six cases of the sort; but the diseases are not well discriminated. In fact, I believe that in many of the cases they are not correctly described, some of them having been gathered from non-professional sources; the history of some others is, to my own knowledge, incorrectly stated; and some are from professional men who were apparently unaware of the distinguishing characteristics of typhus and enteric fever. Many of them also are far too short; but, on the whole, there appears reasonable ground to suppose that about one-half of the number were cases of enteric, or, as it is termed, "typhoid" fever.

To Dr. Murchison, as the great apostle of pythogenesis, and one who has thereby, according to Dr. Aitken, "rashly committed science to an hypothesis of a highly doubtful nature" (p. 413), one naturally turns for the best evidence that can be produced in support of his dogma. Dr. Murchison has collected 13 cases, which are set forth with considerable detail. Of course it is out of my power to quote them in a paper of this sort. They include the Croydon and Windsor epidemics, the Clapham School case, the Westminster epidemic, alluded to by Dr. Watson, and others equally singular.*

Many of these outbreaks may be accounted for on the explanation of Dr. Budd—namely, the transmission by the sewers of the poison from intestinal discharges. Some of them, such as the "Westminster fever," have been a matter of question as to whether they were fever at all. There still, however, remains a puzzling residuum. But then, on the other hand, we must consider the forcible facts brought forward by Dr. Chisholm, Dr. Hughes Bennett, and others, and briefly alluded to in this paper, in proof of the non-origin of enteric fever from simple fæcal fermentation. It is fair also to state that the experience of Piedvacke gives a certain proportion of cases in which the disease could not be traced to contagion, and appeared of spontaneous origin, children in the cradle being in two or three instances the first to be attacked, and the disease spreading from them. "In the country I noticed, out of 312 cases, 12 typhoid fevers at least where I acquired certainty that there was no anterior connexion, direct or indirect, with other patients; and they have been the stem from which sprung a great number of others." (p. 127, 128.) Piedvacke, however, does not name any peculiar connexion between these cases and defective cleanliness; on the contrary, he expressly denies such an origin.

Such is a brief review of the case from experience. It appears to me that there are certain considerations of which gentlemen who favour us with their observations are too prone to lose sight. Has the explanation of Dr. Budd been sufficiently considered, and has its applicability to the case in question been tested? Is it the rule, I would ask, or is it the exception, even in diseases of the most markedly contagious nature, to obtain an explanation of the origin of the disease? When is it so obtained in a case of scarlatina? How often in typhus, or even in small-pox? Yet what medical man for that reason doubts either their transmissibility or their transmission? The fact is that these diseases are always in existence around us, but their method of diffusion is far too subtle to be traced under all circumstances.

For a hundred and twenty years this country had remained exempt from rinderpest, sanitary defects notwithstanding; and again now it is verging towards extinction. Yet every now and then see how the cases crop up: one in Windsor, after seven months' intermission; others in Derbyshire, after an interval nearly as long; another in Wales, or it maybe even in Ireland. But do we therefore assume the spontaneous generation of rinderpest?

It is one of the laws of nature that animals and plants which propagate by continuous succession should appear in alternating periods of profusion or scarceness. The deeper the knowledge of the naturalist, the more instances will occur to him. The wasp—nay, the very birds are subject to this law. Whence came the humming-bird moths which appeared in such remarkable numbers in the summer and autumn of 1866?—whence the clouds of locusts or of gnats?

But when we descend to the lower forms of life observation is fairly baffled. Their rapid growth, their minute spores, their subtle powers of penetration, their mysterious disappearance and equally mysterious return, their wonderful migrations, are such as the present powers of man are totally incapable to follow—scarcely even his philosophy to comprehend.

At this point I think it fair to leave the present subject.

* Among Dr. Murchison's cases will be found one, supposed to have occurred in Bedford, of spontaneous generation of enteric fever from polluted water. It is very extraordinary that neither myself nor my friend Mr. Blower, though both living and practising here at the time, and anxiously looking for evidence on this subject, should have been aware of the occurrence. This case, or supposed case, has found its way into other works of authority, and into the Privy Council Reports. Cullen observes that there are in medicine "more false facts than false theories." There was at the time in Bedford a great pressure for the introduction of the Board-of-Health system; "shocking examples" were needed to demonstrate its necessity, and in due time they arrived.

From what I have had the pleasure of laying before you, the following conclusions occur to me with more or less of distinctness. That some of them have not been worked out as they should be, is due partly to the limited time at my disposal; partly, it may be, to an inadequate rendering of what presents itself, nevertheless, forcibly to my own mind.

1. Spontaneous generation of plants and animals is a figment which is constantly receding as means of observation extend and improve.

2. Spontaneous generation of parasitical diseases is a figment.

3. The exanthemata may be a low form of fungoid life.

4. Small-pox, a contagious exanthem, is proved by indisputable negative testimony to be incapable of spontaneous generation.

5. Several other contagious exanthemata cannot originate spontaneously.

6. Enteric fever is a contagious exanthem.

7. Febrile diseases of local origin are not contagious.

8. Experiment* gives strong evidence against the spontaneous origin of enteric fever.

9. Observation, as usually conducted, is a treacherous and insufficient test of the origin of febrile diseases.

St. Peters, Bedford.

CASES IN SURGICAL PRACTICE.

BY JOHN EWENS, L.R.C.P. LOND., L.R.C.S. EDIN.

THE following cases occurring recently in my practice, being at least unusual, may, I think, prove of interest.

In March this year I was consulted by a woman, aged sixty-eight, who informed me that she had for the last five years suffered from uterine hæmorrhage to a greater or less extent. She was very anæmic and depressed. As the administration of astringent remedies failed to give relief, I at once proposed a vaginal examination, expecting to find a polypus. I found nothing abnormal in the vagina, and could at first detect no os uteri, although a hard substance, immediately behind the bladder, revealed the presence of the uterus. On the most careful examination, an elevation, with a slight depression in the centre, very similar to, but smaller than, the opening of the urethra, could be made out. This I concluded to be the os; and, as no other source of hæmorrhage could be detected, I determined to dilate and examine the uterine cavity. This I did by means of the smallest laminaria tent that I could get; but even this I could not introduce until I had passed an ordinary probe with some difficulty. The tent, being hollow, was placed over the probe, and guided into the canal of the cervix. The patient was ordered to remain in bed for twenty-four hours, so as to retain the tent; but twelve hours after, on rising to pass water, it slipped out. However, the next morning I found that sufficient dilatation had occurred to enable me to pass a larger tent. Next day another difficulty presented itself. The portion of the tent within the uterus had expanded in far greater proportion than that in the cervix, and could not possibly be removed with any force which I considered it safe to use. (There was a highly-offensive sanguineous discharge; so I used an injection of carbolic acid and water, 2½ per cent., which answered admirably in removing the offensive smell.) I therefore introduced another tent by the side of the one contained in the uterus; and next morning, to my great gratification, I found the os uteri sufficiently dilated to admit of the introduction of one finger, and cleared out from the uterus what I at first thought to be some fibrinous clots. I could detect that the anterior wall was very much thickened, but could not reach to the full extent of the uterine cavity, which was enlarged, and therefore was not sure as to its condition beyond my reach; but as the patient was very intolerant of pain, very nervous, and somewhat exhausted, I was obliged to defer further examination, intending to repeat the process of dilatation next day. But, at my next visit, I found the patient not only free from pain, but that there had been no bloody discharge since the operation. I therefore concluded that what I considered fibrinous clots were really small warty or polypoid growths. Further examination was objected to. The discharge ceased; but, about two weeks after, a clot of blood escaped with some pain, and with the exception of a trifling sanguineous discharge, following the use of a purgative about a month since, the patient has continued well.

Remarks.—The patient, a widow, never was pregnant—a circumstance explained by the almost impervious condition of the os uteri. She first menstruated at seventeen years of age, and ceased at forty-five. The periods were always attended with pain, and the quantity of discharge was scanty. She always suffered from leucorrhœa. The points of interest in connexion with this case appear to be—1st. The long interval between the cessation of the catamenia, at the age of forty-five, and the re-appearance of the sanguineous discharge, as evidence of polypoid growths, at sixty-three. (By the way, I may mention that some years ago I met with a case, in a woman aged seventy, in which the polypus descended into the vagina, and was thence removed by me in a sloughing condition, and hæmorrhage ceased immediately.) 2nd. The nearly obliterated os, and the extreme shortness of the canal of the cervix. Had the cervix been taken up into the body of the uterus by the thickening and consequent expansion of the anterior wall? 3rd. The unintentional and unexpected destructive inflammation set up among the contents of the uterine cavity by the tent introduced on the second day, which, on removal, was found thickly coated with fibrinous deposit. The polypi were so thoroughly disorganised that they were easily detached from the uterus, and (as stated above) looked like clots of fibrin. This inflammation was not attended by pain or any serious symptoms. The chief complication in the case arose from the extreme difficulty of reaching the seat of disease, owing to the very contracted state of the vagina and the constricted os uteri.

The second case alluded to is an instance of the comparatively rare accident of fracture of the humerus by *muscular action*, which occurred to a boy, aged fourteen years, in attempting to throw a stone. He is quite positive that he did not strike against anything. The fracture is exactly in the middle of the shaft, and apparently is due to violent action of the biceps. It is of the transverse kind, and there has been no tendency to shortening or displacement. Firm union has already taken place (in sixteen days). The boy is short and stout, with fair bony and rather extra muscular development.

Cerne-Abbas, August 5th, 1870.

* That is, the only kind of experiment which is permissible.

PUBLIC VACCINATION.

BY THOMAS NEWHAM, M.D.,
MEDICAL OFFICER 3RD DISTRICT, WINSLOW UNION, BUCKS.

THIRTEEN years of Union work (which, of course, has included a vaccination contract) will be sufficient to prove that I have had some experience of the subject upon which I write; and, although the district I hold is by no means an extensive one, yet I trust the remarks I have to make may not be devoid of interest to the numerous readers of THE LANCET.

I propose in the following paper to lay before the profession—first, the method I have pursued in order to secure efficient vaccination; second, the difficulties to be contended against, and how they have been overcome; and lastly, the results.

1. *The method I have pursued in order to secure efficient vaccination.*—The guardians of this Union have appointed one day in every week for the performance of the operation for the town of Winslow, and one day in every three months for the villages composing the remainder of my district, at the pay-room of the relieving officer. At intervals of three months I obtain from the registrar the names of all children born; and before they are three months old I issue a printed notice to remind the parents when and where the child must be vaccinated. I find that the paper given them on the registration of birth frequently finds its way into the fire, or is otherwise lost. By a little management, I have generally been able to secure fresh lymph immediately before visiting my outlying parishes, and thus, if vaccination has

not been from arm to arm, I have wasted so little time as almost to have conveyed warm matter in capillary tubes.

I have always borne in mind the importance of arm-to-arm vaccination; and in the town of Winslow itself have carried it out, as far as possible, by arranging my cases in as much order of succession as I could command. In the villages, however, this method is most difficult to practise, and I have therefore had recourse to lymph stored in capillary tubes. I am most careful that the children from whom I obtain my supplies should be healthy, and I label my tubes with name and date of taking the matter.

With Weir's vaccinator I make three separate scratches on one arm, just long enough to admit of crossing them at right angles with the same instrument. As soon as the parts become slightly reddened, I blow the contents of two tubes upon the abraded surface, and gently rub in the lymph with the tip of the finger. Thanks to the kind teaching of my friend Mr. Robert Ceely, of Aylesbury, I have not for some years used points; and, since I have discarded them, I have been much more successful. I obtain a conglomerate vesicle of the size of a threepenny-piece, and a well-marked and permanent cicatrix.

2. *The difficulties to be contended against, and how they have been overcome.*—Arm-to-arm vaccination has been to me a very great difficulty, not only from the small number of cases (averaging 150 yearly), but more particularly from my widespread district. In my own immediate neighbourhood I can carry it out to a certain extent; but in my remoter villages I cannot do so. It is impossible to take children from parish to parish; no funds are forthcoming for that purpose, even if the parents would consent to such a course. Supposing, again, I took a child with me at the appointed time, the mothers of the children to be vaccinated might, and probably would, object in some way to the child itself; and thus all my trouble would have been in vain. On this point the Inspector of Vaccination has suggested "that the periodical visit should take place every six months. One child might then be vaccinated, and the parents of the others told to come again the following week." The theory of this may be very plausible; but the objections would be that the parents might not like the child first vaccinated, or that, having come perhaps on a cold, wet day with a young child from a distance, they did not intend coming again. Who can compel them to do so? Another objection would be in the fact that all notices are issued worded in this way:—"Dr. Newham will attend at such a place, and on such a day, to vaccinate all children brought for that purpose." Again: the Vaccination Act says that all persons are liable to legal proceedings for non-compliance with its provisions if their children are not vaccinated *before* they are *three* months old. It passes my comprehension to understand how the Act is to be enforced if the visits are to be made at intervals of *six* months. I have, therefore, to the best of my ability, obviated this difficulty by taking recent matter and operating upon all children present at the station at the same time.

Scarcely second to the difficulty of arm-to-arm vaccination is the objection entertained by some parents to the performance of this operation. For some years no case of small-pox has occurred in my district, and I am happy to say that this objection has been gradually dying out. Among my private patients I have no difficulty. In spite of anti-vaccination platform orators, the good, common sense of Englishmen will assert its sway. Not only is this the case among the better educated classes of the community, but I find day by day the same feeling becoming more prevalent among the poor. When this objection is made, it is generally upon the ground of eruptions or some other diseases having followed the introduction of the vaccine virus. To meet this difficulty I do not argue about any results of vaccination;—

> "A man convinced against his will
> Is of the same opinion still";—

but I inform all parents of the name of the child from whom the matter is taken; that it is lymph I would put into my own children; and lastly, when a little gentle pressure is required, that the Act of Parliament is for rich and poor alike, and *all* must obey it. I have only had recourse to legal proceedings in three cases, in each of which the child was afterwards vaccinated, and the parents (at my request) mulcted only in the costs. The magistrates have uniformly supported me, and for that support I am grateful.

One other difficulty is, I imagine, always in the way of public vaccinators; it is the proper carrying out of the Act with due regard to medical etiquette as to cases attended by other private practitioners. This difficulty is to be met, not by the public vaccinator constituting himself the public prosecutor, but by letting it be known that he is ready to vaccinate *all* children free of charge at certain hours. If the patients of other medical men voluntarily submit their children to him for vaccination, I think he is committing no breach of etiquette by acceding to the demand. On the other hand, if they do not do so, I consider it is no part of my duty to compel them; but I make it a rule occasionally to inform my medical brethren who have attended private patients in my district what children under their care are not vaccinated.

3. *The results.*—At this time of writing (irrespective of cases to be vaccinated by other medical men) I have thirteen children only unvaccinated under the age of three months, and the whole of them are not due until periods varying from August 25th to October 29th. Two villages in my district are so distant as to be attended by another medical officer. I believe them to be well cared for in this way. In the remaining parishes which constitute my own personal charge, *every* child born during the last *four* years, if living, and not having left its parish, has been thoroughly vaccinated; in the vast majority of cases *before* it has been three months old, and in all cases as near that age as has been consistent with my periodical visits. For two years I have not had an unsuccessful case, and I attribute this to the use of Weir's vaccinator and of liquid lymph. To avoid even the chance of failure, I use recently charged tubes as a rule; but I have occasionally used matter which has been preserved some time, and I can safely assert that, so far from its having deteriorated, I have produced vesicles from lymph four years old not to be distinguished from those in arm-to-arm vaccination.

One word more to conclude a subject in which I take great interest; so great, indeed, as to imperil its existence in the columns of THE LANCET on account of its inordinate length. I plead guilty to not having satisfied the inspector upon two points—viz., insufficient arm-to-arm cases, and allowing my assistant to operate (although this has not been the case except I was present, or saw the child at the proper time, and certified). Unwittingly I have not fulfilled the requirements of the Act, and I have been punished by the refusal of extra remuneration. After reading this paper, the profession must judge and pardon my sins of omission. For my own part I can sincerely affirm that I have honestly and conscientiously *tried* to do my duty.

Winslow, August 16th, 1870.

NOTES OF A CASE OF

STRANGULATED INGUINAL HERNIA IN A BOY OF NINE MONTHS.

BY ARTHUR ANDREWS, M.R.C.S., L.S.A.

EDWIN V——, aged nine months, was first seen on the 25th of May. He was then suffering from a right inguinal hernia as large as a small hen's egg. The scrotum covering it was tense, shining, and red. The hernia, which was congenital, had been down since the morning of the 23rd. There was constant vomiting, and the bowels had only been slightly open on the afternoon of the 24th. The child was pinched and very pale; pulse quick and small; very restless; no marked tenderness of the abdomen. Taxis, with warm bath and afterwards chloroform, failed to reduce it, and I performed the ordinary operation. The sac contained a large quantity of intestine and about half an ounce of clear yellowish fluid. The wound was closed by two silver sutures, and a pad of lint applied. He recovered well from the chloroform, and in the evening took some milk. At 8 P.M. he was much quieter, and had only been sick once. During the night he cried very much and was very sick; and at 11 A.M. on the 26th it was found that the hernia again protruded. Chloroform was again necessary for reduction, and then the hernia was retained by a firm pad of lint held in position by a long piece of strapping applied

down the back across the right side of the perineum over the pad, and then up the front of the body and over the left shoulder. Another piece was put on in spica form to prevent the pad slipping aside. He was ordered half-drop doses of tincture of opium every three hours if in pain. His pulse was certainly slower and of better volume.

May 27th.—Better; takes the breast well; has only been sick once, and is much quieter; hernia quite retained; the bowels well open; no tenderness of abdomen.

28th.—Pad removed; wound suppurating throughout; sutures removed, and the pad replaced as before; scrotum swollen, red, and œdematous.

29th.—Much better; free discharge from wound; scrotum not so inflamed; pulse slower; looks better; takes food well.

31st.—An abscess which formed in right flank (apparently from the wound being closed by the pad) was opened; has cut two teeth since the operation; better in health; bowels regular.

June 2nd.—Abscess has discharged freely; wound almost healed; pad still required to retain hernia. Ordered five minims of syrup of iodide of iron three times a day.

6th.—Abscess closed; wound healed, except about a quarter of an inch, which is quite superficial; no impulse is now felt when the child cries. Pad replaced.

10th.—The child pulled the pad off, and the hernia prolapsed, but was easily reduced and the pad reapplied.

All went on well, and on June 23rd a truss was applied—that is, at an interval of a month from the operation.

I wish to draw attention to the difficulty of retaining the hernia, which could not be accomplished in the ordinary manner, but was effected by the use of strapping at first as described above, and afterwards by the use of the piece passing over the perineum to the shoulder alone.

Faraham, June 28th, 1870.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

RECENT OPERATIONS.

ON Wednesday, July 3rd, Mr. Maunder performed lateral lithotomy on a boy aged seven, and removed a stone the size of a large hazel-nut. The nucleus was uric acid, and it had an outer coating of phosphates. The patient passed water by the natural passage in less than a week.

Mr. Tay amputated the arm of a man just below the tuberosities. The poor fellow had had his arm crushed a few days before by a machine at some gutta-percha works; his brachial artery was ruptured, the brachial plexus torn across in part, and the humerus fractured and somewhat comminuted. The injury was not compound; but there was some laceration of the skin of the upper arm. He is progressing favourably.

Mr. M'Carthy removed a large fatty tumour from the outer side of a woman's arm. In the skin covering it were some dilated veins, and to the touch it rather gave one the idea of being a fibro-cellular growth, or of having a hard, fibrous nucleus. On removal, however, it was found to be a good specimen of a fatty tumour, lobulated, and with its central portion more condensed than usual.

The same surgeon performed Mr. Colles's operation for harelip on an infant who had also a cleft hard and soft palate.

Mr. Reeves tied the femoral artery of a man who was admitted a week before with a punctured wound into the knee-joint. Four days after admission hæmorrhage came on, and as the tourniquet, cold, pressure, and position failed to arrest it, Mr. Reeves enlarged the wound, and emptied out all clots. As the bleeding appeared to be venous, he removed the tourniquet (which had caused considerable œdema of the thigh), and plugged the wound with lint steeped in iced water, at the same time ordering the leg to be raised, and ice applied. The bleeding did not return; but as in a couple of days free suppuration began to take place in the joint and tissues of the thigh, at Mr. Maunder's suggestion, Mr. Reeves tied the femoral. The next day the amount of pus secreted was diminished by half.

Mr. Maunder has also lately tied the brachial for severe inflammation of the hand.

On Wednesday, July 10th, Mr. Tay removed a phosphatic stone from a boy by the lateral operation. He made a small internal incision, and in three days the boy passed urine by the natural passage. Mr. Reeves excised the right knee-joint of a boy aged twelve, who had received a kick on it two years ago. The joint had inflamed, and ever since, in spite of varied treatment, had been a source of great trouble to the lad. At the request of his parents, and with his own consent, the joint was excised. The synovial membrane was much thickened and degenerated, the cartilages ulcerating in one or two places, and there was a small cavity in the head of the tibia.

On Saturday, July 13th, Mr. Reeves disarticulated at the hip-joint in a woman, the subject of a malignant tumour of the thigh. The growth extended high up, and surrounded the acetabulum, and could be felt above Poupart's ligament. The operation, which was in consequence a complicated one, was performed without difficulty; the wound was mopped out with strong solution of chloride of zinc, and the suspicious parts of it touched with the solid chloride. The woman rallied somewhat from the operation, but sank fifteen hours afterwards. We are informed that this was the third amputation at the hip at this hospital for malignant growth during the last eighteen months, the other two having lived some months, but ultimately succumbed to the disease.

Mr. Reeves has also recently excised the wrist-joint of a woman by a modified operation. He reflected a semilunar skin flap from the dorsum, separated and lifted up the extensor communis, divided the extensor carpi ulnaris and the ligaments, and removed all the diseased carpal bones, the ends of the metacarpal, and an oblique slice of the ulna, leaving its styloid process. The case does not appear to be a very promising one, as the skin is not sound, and the woman is middle-aged.

WESTMINSTER HOSPITAL.

CARBUNCULAR ABSCESSES OF THE BACK; TREATMENT BY YEAST POULTICES AND INCISION.

(Under the care of Mr. HOLTHOUSE.)

THE case which we note has been lately in the hospital, and at our last report was doing well. It presents some peculiarities which seem to make it worth recording. Mr. Richard Davy, surgical registrar to the hospital, has obliged us with notes of it.

A. W——, aged sixty-seven, stonemason, was admitted on Aug. 9th with two carbuncles on his back. That on the left side (which has been coming on gradually for two months) is situated between the scapula and the dorsal spines, measures five inches by three, and projects backwards of the size of a cocoa-nut. The skin over it is blanched and wash-leather-like in appearance. Fluctuation is distinctly felt beneath the skin. The carbuncle on the right side is as big as a bantam's egg; is placed on the corresponding surface, but more distant from the spinal column; and presents, though in a less marked degree, the same characteristics as the other. Some three or four furuncles surround each. The patient's urine contains no sugar. He was prostrate and sweating much by night and day, but not complaining of much distress. He was ordered yeast poultices, with decoction of bark and nitric acid. On the following day Mr. Holthouse made a free longitudinal incision into the left swelling and let out eight ounces of pus. A smaller quantity was also removed by an opening made into the right.

Aug. 13th.—A large part of the loosely hanging slough was separated by scissors from the floor of the left abscess, and both wounds were dressed with carbolic-acid lotion.

19th.—The man's health is rapidly improving, and both wounds are covered with ruby granulations, smeared over with normal pus.

Mr. Holthouse remarked at the bedside that this affection might be more properly designated a carbuncular abscess than carbuncle, because the ordinary mode of discharge in the case of a carbuncle was not observed—i. e., there was not a number of apertures giving exit to pus and slough; but here was noted a prominent raising of one large unbroken sodden patch of skin and areolar tissue, due to the confinement of eight ounces of pus. On evacuating the abscess, the flaccid, half-mortified walls collapsed, and the loose slough was subsequently excised.

ST. BARTHOLOMEW'S HOSPITAL.

DYSENTERY COMPLICATED BY PERITONITIS AND HEPATIC ABSCESS.—INTERMITTENT HÆMATURIA IN A CHILD.

(Under the care of Dr. SOUTHEY.)

IT would seem that the poison which causes dysentery has at some times and places the power of establishing hepatic complications so severe as to lead to abscess; while Dr. Budd's theory, that hepatic abscess was a consequence of dysentery through the vitiation of the portal blood from the morbid intestines, appears to have been rendered improbable by more recent investigations. It is computed that about 18 per cent. of the fatal cases of dysentery are complicated with hepatic abscess. The following is an example of a fatal termination to a case of tropical dysentery from this cause.

H. M——, aged forty-seven, had been resident for two years in India, where he had suffered from dysentery, and what appeared from his statement to have been pleuro-pneumonia of the right side. The former disease had assumed a chronic form, for which he was admitted into the hospital. The abdomen was also distended, tympanitic, and so tender that the weight of the bedclothes could not be borne. Under six weeks' treatment by enemata, and ipecacuanha and opium, both the dysentery and the peritonitis abated; but at the same time a tumour was observed in the right infra-axillary region, bulging the sixth and seventh ribs, which yielded no fluctuation, but pitted on pressure; the side became dull on percussion, friction sounds were heard in places, and the breathing became rapid and shallow, while the seat of the tumour became painful, and hectic symptoms were observed at night. There were no signs of hepatic enlargement. In the course of three days distinct fluctuation became superadded to the œdema; and in as many more about three ounces of dark grumous purulent matter were evacuated by a simple incision, and this on examination revealed pus-corpuscles intermixed with oil-globules and hepatic cells. The following day, gentle pressure being applied by the hand, about an ounce more of similar fluid was expressed, and the flow ceased; but on the patient being made to cough, more was squirted out to a distance of some inches. This last circumstance, coupled with the presence of hepatic cells, confirmed the diagnosis already formed, that an hepatic abscess had opened into the pleura. The patient's condition did not improve after this operation, and in five weeks he died from exhaustion.

At the post-mortem examination a circumscribed abscess of the size of a hen's egg, communicating with the pleura through the diaphragm, was found under the convex surface of the liver. The purulent matter in the pleura was contained in two communicating cavities, which were confined to the lower lateral portion, and limited by adhesions. A few small points of ulceration were seen in the rectum.

The following case, for a description of which we are indebted to Dr. C. J. Davis, house-physician, is somewhat obscure, but appears to us to resemble, in some, but not in all, respects, those examples of intermittent hæmaturia which have been described in late years by several authorities. The age of the patient was less, we think, than was the case in any previously recorded instance. Dr. Greenhow treated a boy of eight years and a half, and has given the case amongst others in the Transactions of the Clinical Society, vol. i.

E. J. V——, a child aged four years, was brought to the hospital on May 6th, the mother stating that the child had passed about three ounces of blood two days previously by the urethra. She had never observed any arrest in the flow of the child's urine at any time, nor had the patient shown any signs of irritation at the orifice of the urethra. She had not received a blow about the loins lately, but about nine months previously she had fallen down eight steps of a staircase. The child seemed to be in excellent health and spirits, as the mother declared she had always been, except about a twelvemonth ago, when she was supposed to have had measles.

May 8th.—Urine sherry colour; specific gravity, 1018; no albumen; no blood discernible to naked eye or by microscopic examination. The patient has stomatitis.

16th.—The child goes about the ward, and seems quite well. Has passed no bloody urine since admission.

17th.—Passed about a pint of bright-red blood. After allowing it to stand for a while, it clotted. Under the microscope blood-corpuscles were seen crowding the field; there were no renal casts of any kind whatever, nor any epithelial scales. The urine passed about six hours later was bloody, but revealed nothing to throw any light upon the seat of the hæmorrhage. The nurse, being instructed, frequently observed whether the flow of urine was ever interrupted, or whether the child showed signs of calculus in the bladder; but these were never obtained, and so this hypothesis ceased to be entertained.

24th.—Passed about three ounces of urine similar to that of the 17th. The child had micturated a few minutes previously, and the urine was healthy. The nurse observed that the first flow was like blood, which passed in a continuous stream, and that it was evacuated through the orifice of the urethra.

The case was not, therefore, one of hæmorrhage from any portion of the urethra, neither was it one of those extraordinary cases of early menstruation, for the house-physician, being in the ward at the time, examined the genitals immediately, and found no blood-stains about the vulva, although the orifice of the urethra showed evident signs of blood-staining.

June 1st.—The patient called for a vessel, and passed four ounces of bloody urine. Reaction slightly acid; specific gravity 1024; albumen about one-third. Examined microscopically, however, blood-corpuscles were seen, with an epithelial scale (renal ?) here and there.

15th.—Rash of measles appears.

The child passed no more bloody urine; but, after recovery from the measles, seemed quite well until the 26th July, when she was discharged.

Provincial Hospital Reports.

NORTHAMPTON GENERAL INFIRMARY.

TWO CASES OF OPERATION FOR SCROTAL HERNIA; RECOVERY.

(Under the care of Mr. MASH.)

THE following cases are from notes by Mr. J. G. Carruthers, house-surgeon to the infirmary:—

W. A——, aged fifty-six, of spare habit, was admitted on May 18th. On examination he was found to be suffering from a large scrotal hernia, which had protruded on the 16th of May whilst he was at work. Vomiting came on an hour after the protrusion occurred, and continued at intervals upon taking fluids into the stomach up to his admission. Urine had been passed twice since the hernia appeared. He had been the subject of hernia for two years, but had never worn a truss, being always able to return it on its occasional appearance. The symptoms were not acute, pulse quiet, there was not much pain at the epigastrium, and no vomiting upon taking nearly a pint of milk. A warm bath, opium, the taxis, with and without chloroform, and the application of ice having all failed to bring about reduction, the stricture was divided. By an incision along the course of the inguinal canal, and division

of the superimposed structures down to the sac, the constriction was found to be caused by a band of about one-eighth of an inch in width across the neck of the sac and external to the abdominal ring, both of which were quite patulous. The sac was opened, the constricting band divided, and the bowel (small intestine) returned. The gut was congested, but not sphacelated. There was a large quantity of serum in the sac. The wound was closed with sutures, and carbolic oil applied on lint, over which a compress was firmly bandaged. The patient was put to bed, and ordered opium every four hours.

Nine days afterwards the bowels were opened by a dose of castor oil. As there was great œdema of the scrotum and penis, an incision was made into a dependent part of the scrotum, but no pus was evacuated. A fortnight afterwards a large quantity of pus was discharged from a small opening which remained at the lower end of the incision (the other part being healed). On careful manipulation, a large collection of pus was found in the scrotum. A director was passed through the opening, and, a careful incision having been made upon its point, a quantity of pus was discharged, and a strip of lint passed from one aperture to the other, thus ensuring a free opening. Warm-water dressing was applied. From this time he progressed speedily towards recovery, and was discharged cured on July 9th.

Wm. D——, aged thirty, a stout vigorous man, admitted on May 30th, suffering from a scrotal hernia, which was tense and tender, and gave no impulse on coughing. He had been the subject of hernia for three years, but, having been always able to reduce it, had never worn a truss. On this occasion he was unable to effect reduction.

The taxis having been persisted in for two hours before his admission, after a short attempt at reduction under chloroform, it was decided to operate. An incision was made in the long axis of the tumour, and after a careful dissection the sac was reached and opened. The stricture was situated at the internal ring, and was divided by the herniotome guided and guarded by the finger.

The intestine (colon) was congested and contused, from the attempts at reduction; but, having been strangulated so short a time (seven hours), there was no sphacelus. Ordered ice, milk, and opium, every four hours. He complained of sickness twice subsequent to the operation.

Five days after the operation his bowels were opened by castor oil, and he was discharged cured on July 5th.

TUNBRIDGE WELLS INFIRMARY.

ERYTHEMA CIRCINATUM.

(Under the care of Dr. WARDELL.)

A WELL-MARKED example of this uncommon affection was recently taken into the Tunbridge Wells Infirmary.

A. H——, aged forty-eight, single, a domestic servant, and a stout and muscular woman, was admitted May 31st, 1870. On the 26th she began with all the ordinary symptoms of acute rheumatism, and for some days she was attended by the house-surgeon as an out-patient. On admission the larger joints, and especially the knees and right wrist, were swelled. There was no cardiac complication, but the systolic sound was shorter and less loud than natural. On the lateral aspect of the right arm and immediately below the elbow was a round, clearly defined, slightly raised patch, two and a half inches in diameter, and of brownish damask-rose redness. The centre had a yellowish tinge, and there the epidermis had become broken and shrivelled, and was being thrown off in furfuraceous desquamations. The back of the right hand was of rose-red, bounded transversely by a clear line which described the segment of a circle. The back of the thumb and the back of the middle finger were of the same colour, the palmar surface of each being of natural appearance. On the anterior part of the left leg, extending up over the lower two-thirds of the tibia and two inches in width, was an erythematic blush of purplish hue, the skin being slightly raised, but the margins were less distinct than the previously described patches. On the side of the right knee-joint, and on the lateral aspect of the left leg, were similar rose-coloured patches, some of which in the centre were becoming yellowish. The statement of the patient was that these places began to appear soon after the cessation of the pains in her limbs, and simultaneously with the enlargement of the joints. She was put under the alkaline treatment, in combination with the ammoniated citrate of iron, had Dover's powder at bedtime, and was ordered to lie between blankets. A powder was prescribed for the spots, with one part of the oxide of zinc and three of powdered starch. Under this treatment the acute rheumatism soon began to subside, and with its declension the patches began to fade. As the colouration of the spots became less vivid they assumed a yellowish tint, and the cuticle proper to their extent desquamated, in branny whitish scales, the cutis vera lost its tumidity, and the elevation disappeared. When this peculiar form of erythematic inflammation has been observed, it has generally been in acute rheumatism.

Dr. Wardell not long ago saw, in the instance of a young girl, who had also acute rheumatism, an exceedingly well marked illustration of erythema papulatum, which occurred on the backs of the hands, fingers, feet, and toes. The affection closely resembled chilblains. At some of the parts mentioned the spots had become aggregated into thickly set patches, like the reddish, livid, port-wine stains of purpura. The rheumatic diathesis is that condition in the system which is most prone to the development of these forms of erythematic inflammation.

LUPUS ERYTHEMATOSUS, TREATED BY LEMON-JUICE.

M. C——, aged twenty-three, single, a servant, of florid complexion, and a well-formed, muscular young woman. She said she had had the affection from infancy, and at various times had consulted a large number of doctors. The right cheek, as far the ear and down to the edge of the lower jaw, presented the unsightly appearance of chronic lupus. The diseased parts were of brownish red, and at most places the skin looked tense, smooth, and shining. On closer examination, a number of slightly raised eminences, of two or three lines in diameter, were observable, which were soft to the touch and looked of jelly-like consistence. Certain of these tubercular elevations were streaked with vascular ramifications, and at various points the epidermis was peeling off in whitish, furfuraceous scales; at other points were some open sores which secreted a clear serous fluid. At certain places the cutis vera was raised and hypertrophous, and was of reddish-salmon colour. At the margins shining white cicatrices were left. This patient was under the care of the house-surgeon, Dr. De Haviland Hall, as an out-patient, in the early part of 1869, when she was treated with various remedies, but without deriving much benefit. She again came under the care of Dr. Hall in the spring of the present year. On May 6th he ordered her to take the juice of three lemons daily. In one week the improvement became most manifest. The remedy was continued in conjunction with cod-liver oil (which she had at various times before taken with other medicines, but with little advantage), and the face became wonderfully better. The improvement continued, and in less than a month the face was very much better than she ever remembered it to have been.

Dr. Wardell informs us that he has recently had, in his private practice, another case illustrative of the beneficial effects of lemon-juice in this obstinate affection. This was in a middle-aged woman, who for six years had this form of lupus, and who got quite well.

Foreign Gleanings.

SYPHILITIC GUMMA FIFTY-FIVE YEARS AFTER THE PRIMARY SORE.

PROFESSOR FOURNIER, the eminent syphilographer of Paris, has published this case in *L'Union Médicale* of August 9th, 1870. The patient was treated in private practice, and is seventy-two years of age. M. Fournier was called to him, in April, 1869, for a tumour of the thigh, supposed to be cancerous. He had never been ill, except within the last few years, when he suffered from caries of the lower jaw. The tumour on the thigh had grown very rapidly in a couple of months, and measured five inches vertically and four horizontally. It was mammillated, and set with protuberances as large as chesnuts; skin normal, except on one spot going over into ulceration. Walking

was inconvenient, and the tumour rather soft and adhering to the fascia lata.

On inquiry it was found that the patient had formerly had lues, and that the caries of the maxilla mentioned above had been pronounced of a syphilitic nature by Ricord, Nélaton, Demarquay, and others. M. Fournier discarded the idea of cancer, and looked upon the tumour as a syphilitic gumma. Iodide of potassium was prescribed, of which the patient took finally seventy-five grains a day. In six weeks the tumour had disappeared.

Now, this result went far to give the case a syphilitic complexion; and the question arose, as the patient had had a chancre, followed by a few secondaries, at the age of seventeen, and no symptoms since, whether the caries of the jaw, which happened fifty-two years, and the gummy tumour which appeared fifty-five years, afterwards were dependent on the primary infection. M. Fournier thinks so, and relies on the veracity of his patient. He prefers this to trusting a series of hypotheses which might invalidate this view. Syphilis has been known to lie latent in the organism for twenty or thirty years; why not fifty?

With all due respect to so eminent a syphilographer as M. Fournier, we may just remark that he is rather more disposed to build theories upon the statements of patients than his master (Ricord) used to be, who mostly held all such sayings of little or no value. Secondly, the author does not tell us what the men who treated the caries thought of this supposed dormant state of syphilis for more than half a century. He does not tell us whether they used iodide of potassium or not, and whether they employed any local remedies. M. Fournier does not say whether his patient was married, with a family, and, in that case, what was the state of health of the children and grandchildren. Such data would certainly be valuable in the discussion of the case. Now, various views might be held. The tumour may have been a glandular one, and what wonder then if iodine caused its disappearance? The very fact of the caries might be brought to harmonise with the glandular tumour—bones and lymphatics suffering under the influence of the same diathesis. Then, supposing that the patient's symptoms were really syphilitic, the objection might be ventured (which, indeed, the author himself mentions) that a fresh infection might have taken place either with or without the patient's knowledge. M. Fournier puts out of the question any deception on the part of the old gentleman, but there might be various circumstances to render reticence compulsory; and, as to taking the disease unwittingly, that is perfectly possible, especially with old people. We have seen an aged lady who had eruption and iritis from playing with a syphilitic child. One exceedingly valuable fact would, however, become clear, if it were found out, in this or in any other case, that a recent contamination had taken place—viz., that the influence of the first infection had died out, and that the disease had actually and truly been cured.

GOOD BREAD WITHOUT YEAST.

The *Archives de Méd. Belges* of May, 1870, states that Horsford's American powder is composed of two parts, one acid and the other alkaline; the first an acid phosphate of lime and magnesia, and the second bicarbonate of soda. These powders are white and floury-looking, and wrapped in distinct packets. A measure is used composed of two truncated cones fastened by their bases, and of different sizes. When bread is to be made, the smaller cone or cup is filled with bicarbonate of soda for a pound of flour, and the larger cup with the phosphate. Both powders are then carefully mixed with the flour, sufficient water is added, the paste is made, and put without delay into the oven. During the kneading a double decomposition takes place; the phosphoric acid mixes with the soda, and the carbonic acid which is freed makes the paste rise, and renders it porous.

Professor Liebig has modified the alkaline powder, in which he incorporates less than half of chloride of potassium. The Professor says: "I have been busy experimenting with this powder for the last eight months, and I have found that excellent bread is obtained. The powder contains, in a chemical form, the saline matters of the bran, so that no yeast is required." Mr. Horsford adds that, in 1868, more than a million pounds of his powder were sold in the United States. Bread can thus be produced by machinery; and this method is especially valuable for armies in the field or on board ship.

DEATH ON THE TABLE FROM HÆMORRHAGE INTO THE AIR PASSAGES.

Professor Verneuil, of Paris, is noted for the readiness with which he puts his failures or mishaps upon record. At a meeting of the Surgical Society in June last he related the case of a boy of sixteen affected with nasal polypus, extending very far towards the basilar process, with incipient exophthalmia, and complete deafness on the left side. The polypus filled up the whole of the pharynx, and sent branches into the maxillary sinus, the orbit, the foramen lacerum, &c.

M. Verneuil operated on June 29th, and the patient having been narcotised, the upper jaw was removed in the usual manner. This done, the mucous growth was torn away in fragments, and the hæmorrhage became considerable, in spite of the pedicle being held with forceps. As the boy felt choking, he screamed, and rejected much blood, when douches of cold water into the gap were tried. Syncope soon occurred, and now the blood was courageously sucked up from the passages, and insufflation of air was performed. The patient thereupon began to breathe more freely, and screamed. This brought on bleeding again, which had stopped during the swooning. The same measures were tried again to stop the hæmorrhage, but to no avail, and the boy suddenly expired.

M. Verneuil thinks that the fatal issue was due to his having made the patient sit up in order to stem the bleeding, the cause of death being principally syncope, and not chloroform.

M. Lefort thought, however, that anæsthesia had a great deal to do with the death; whilst some members considered that the unfortunate event was mainly due to the entrance of blood into the air-passages.

MEDICAL VOLUNTEERS FOR GERMANY.

THE following are the conditions upon which the services of foreign medical practitioners will be accepted by the Prussian Ministry for War:—

1. They shall hold themselves at the disposal of the military authorities, and undertake whatever duty such authorities may determine.

2. Their services at commencement will only be required in the hospitals at the rear of the armies, and not with the troops in front

3. A fortnight's gratuitous service is required, after which time, upon receiving a certificate of efficiency from the Prussian superior medical officers, 9s. (nine shillings) per day pay and free quarters may be granted.

4. Knowledge of the German language essential.

5. The production of certificates that the applicant is a properly qualified medical practitioner in his own country. [M.R.C.S., L.R.C.P., or a similar degree.]

6. Consent of the Government of his country. [For medical officers in the British service.]

7. The production of a paper from the North German Ambassador or Consul-General certifying the position and respectability of the applicant. [Some letter of introduction from a superior medical gentleman is sufficient. An English passport must be produced at the Embassy, 9, Carlton House-terrace, and will be visèd by me, and letter of introduction given to the gentlemen. They must proceed to Mayence, report themselves at the Etappen Commandant there, and will be sent from there to some German hospital.]

8. No travelling expenses will be allowed.

The Royal Prussian Commissioner,
R. ROERDANSZ, Major.

BUSTS OF SIMPSON AND GOODSIR.—Mr. Brodie, the well-known sculptor, has just completed two excellent busts of the late Sir J. Y. Simpson. One represents Sir James in his genial mood, the other in his less characteristic but equally memorable aspect as the *savant* and professor. The same artist has also executed an admirable bust of a man still more endeared to the university—the late John Goodsir. This work will be presented to the senators on an early day.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 3, 1870.

THE Report of the Medical Officer of the Privy Council, to which we have already made brief reference, will be accessible to the public by the time these observations are published, and will receive, we hope, some of the attention that it richly merits. It is impossible to rise from its perusal without sharing the author's manifest conviction that the good seed he has sown so patiently is about to bear its fruit, and that the time is at hand when the Legislature will no longer be either able or desirous to thrust aside considerations relating to the public health, and to bury them out of sight under heaps of polemics or of political controversy. In these days we live fast; and the signs that a subject is beginning to engage the attention of the people are soon followed by the period of practical work and of enforced reform. We believe there is a conviction gaining ground that opposition to sanitary law is mainly the passive resistance of owners of property to enactments that would call upon them for immediate outlay; and such a resistance as this can place no permanent obstacle in the way of the accomplishment of a great national good. It will always be one of the chief glories of the medical profession in England that its members have persistently fought the good fight for the improvement of health and the prevention of disease; and we hail with no small gratification the various evidences that point to triumph as being near at hand. Among these we may mention Mr. SIMON'S tone of cordial hopefulness, and the general character which is this year impressed upon his work.

The most noteworthy feature of the Report is, we think, its recapitulation of facts and arguments formerly stated, and formerly neglected, but now marshaled once more in their due order, like veterans for the supreme effort of a well-fought day. It is perhaps a matter for congratulation that the earlier of Mr. SIMON'S Reports can no longer be procured; since this very circumstance has induced him to quote from them, and thus to recall them to mind in the best and most practical way. This applies especially to the section that is devoted to the consideration of water-supply in its relation to public health, in which Mr. SIMON first states his general proposition that a vast influence is exercised over the health of communities by the quality of the water which they consume, and then proceeds to illustrate it by a description of some of the various tragedies that it has been his official duty to observe and record. The cholera of 1849 and 1853, the relative mortality in the districts of the Lambeth and the Southwark and Vauxhall Companies, the difference in the death-rate from diarrhœa in the same districts, the Theydon-Bois cholera outbreak, the East London epidemic of 1866, and the typhoid fever of Guildford, are all recalled to recollection; and the facts are again stated which show the terrible power of doing evil which Water Companies possess, and the helplessness of the public when injured by them. Mr. SIMON repeats and enforces his suggestion that all water purveyors should be rendered liable in pecuniary damages for the distribution of zymotic disease; and that both they and local health authorities should be subject to indictment for default in their duties. For ourselves, we think it is much to be wished that the supply of water was by law altogether taken out of the hands of trading companies, and placed in those of a board dealing with funds obtained from rates. A commercial company must necessarily be armed with the power of refusing to give the commodity in which it deals to customers who are unable or unwilling to pay for it; but the supply of pure water to every household ought not to be subject to this condition. It is a first necessary for the preservation of health; and the diseases fostered by want of it, or diffused by foul water, have no tendency to limit themselves to the houses in which they originate. The typhoid that springs up in the court from which the "water is cut off" may spread to the neighbouring mansion from which no collector was ever sent empty away; and to forgive LAZARUS his water-rate would be an act that might preserve DIVES and his house from destruction. Our knowledge about water has become such that we should provide for its supply to all, and that we should also take prompt means to prevent the use of that which is contaminated. We trust that the Lord President of the Privy Council will be prepared to initiate legislation in this direction in the coming session of Parliament, and that the programme put forth by Mr. SIMON may be regarded as that which will be substantially accepted by the Government. We have no doubt that it will be cordially promoted by the press.

The part of the Report which strikes us as being the least hopeful is that which relates to scarlatina; and there is something almost of sadness in the tone of the statement that it is "surely not unreasonable to demand for human life in this respect some of the same sort of administrative efficiency as the money interests of cattle-keepers have received." Mr. SIMON proceeds to admit that the restrictions required in the interest of public safety would "interfere with certain hitherto permitted freedoms: that children should at their parents' discretion carry infection from families into schools; that schoolmasters should at their discretion disperse infected children haphazard about the country; that householders should at their discretion send infected wash-things to common laundries; that lodging-house-keepers should at their discretion conceal the infectedness of their apartments; that all sorts of people, in all sorts of ways, should at their discretion endanger others." This is a striking and by no means overdrawn picture, and shows clearly and plainly enough the only methods now at our command by which scarlet fever can be limited. We fear, however, that it points to remedies that are not likely soon to be afforded to us. The laws of England have been framed by possessors of property, who have been always desirous to secure the largest measure of freedom under which that property could be safe. Those laws have therefore always respected property and liberty more than human life; and it will be nothing less than a

revolution if at some future time the superior sanctity of life should be asserted. We do not despair of seeing the day, but we hardly expect to see it soon.

THE unity of Medicine, though more than a sentiment, is still something less than a fact. The multiplicity of corporations is the last remaining obstacle to the general recognition that Medicine—the *ars medendi*—is one and indivisible. The ingenuity of man has been exercised in showing the divisibility of Medicine. There are not barber surgeons, it is true. But there are surgeons and physicians. Each of these have their respective Colleges in each division of the kingdom. Then there are the Halls of the apothecaries in England and Ireland. One would have thought that the force of nature could not go further in devising another medical corporation in a small country. But there is yet another, showing curiously at once the division and the unity of Medicine: the Faculty of Physicians and Surgeons of Glasgow—represented in the Medical Council by Dr. FLEMING, one of the most sensible and useful members of that body. The Glasgow Faculty could not be recognised in its complete character under the Medical Act. The corporation spirit under which that Act—good as it was in some respects—was framed, and under the influence of which it has been administered, required the Faculty to abate half of its character, to become one thing or another, to act the part of a surgical corporation or of a medical one. It had to be determined whether the licence it had to give should be a medical qualification or a surgical one. It was decided that it should be surgical. And so it comes to pass that, with the creditable exception of one or two double diplomas in Scotland, all the degrees and diplomas now registered are one-sided ones—medical or surgical, not both. The operation of this system has been, that a man, in order to become fully qualified, has required two qualifications, each of them, for the most part, having to be obtained from a different corporation. In other words, it has taken two, and often three, corporations to make a general practitioner. A student has gone to the College of Surgeons for a diploma in surgery, to the Apothecaries' Hall for the useful diploma in medicine, and often to a university for a presentable title. The Act of 1858 did nothing to abate this grievance and this absurdity. On the contrary, in the Register which it instituted every person was to be registered according to his qualification to practise medicine *or* surgery, and a single qualification entitled him as effectually as a double one to registration; and the Medical Council which it created was made up predominantly of nineteen corporations or universities having the power of granting, for the most part, only partial qualifications.

Now this separateness and multiplicity of the corporations is not a mere sentimental grievance and a misrepresentation of the great truth of the oneness of the medical art, but it is a practical grievance which is at this moment hindering the progress of medical education, and preventing due respect being paid to the great body of practitioners. A great deal has been lately said about the glory of the corporations and their affection for the profession, and concerning the duty of the profession to support and honour them. But it is time to ask what the corporations are prepared to do to advance the glory and welfare of the profession. Are we always to have the existing divisions, leading men to think that a physician is quite a different thing from a surgeon, and an apothecary inferior to them both? Are we always to have nineteen corporations to dilute the strength and glory of the profession?

A very interesting book is before us, in its second edition, "On the Unity of Medicine," showing how the healing art has been hindered and degraded by being divided and broken up into departments; and how we are behind all other great countries in the sectional and partial nature of our medical diplomas. The association of medicine first with monks, then with barbers, and finally with traders in drugs, is set forth as the great steps of degradation of the medical art. The last alliance is still held to be degrading medicine and injuring it as a profession and an art. The author—Dr. FREDERICK DAVIES—is undoubtedly right; and he does a great service to the profession in publishing a book so full of interesting history. But we shall hope to discuss on another occasion the alliance of medicine and the drug trade as exemplified in the Apothecaries' Company, which has undoubtedly done very much more for the profession than might have been expected of it, and certainly more than some corporations of much loftier pretensions have done.

We confine our attention just now to more pressing illustrations of the divisions of the profession into sections. We want the great body of practitioners represented in the Medical Council. And what is the practical difficulty in the way of the realisation of such a reasonable and proper wish? The answer is—nineteen corporations clashing and competing with each other. Anybody who has studied the bearings of this question of direct representation will see that the profession is ignored and disregarded in consequence of the claims and pretensions of its various corporations. In the Council, representing medical authorities in England, each giving only one kind of diploma, there are seven gentlemen; representing Scotland, five; Ireland, five. In the case of Scotland, two of the gentlemen represent respectively two universities. There are so many corporations to be represented that, as a simple consequence, there is no room for men who represent general practice in all its real variety, from scarlatina to stricture, and from peritonitis to paronychia. These nineteen corporations, by their very number, and by their partial and imperfect diplomas, are the real obstacles to the recognition of the unity of medicine. Some of these bodies exist only to give licences. By the Bill of Lord DE GREY the licensing power was withdrawn from them all, in common with all other bodies. Yet they were continued in full power and glory in the Medical Council, with no other effect than that of preventing the return of men to represent the profession in all its breadth and exigency. It is time to ask if these nineteen bodies are to exist for ever thus to hinder the interests and represent the obsolete divisions of the medical art? Any future Bill, to command the support of the profession, must recognise the unity of medicine by insisting on a clause like the 18th of the Bill of Lord DE GREY as it was originally drawn, providing that everyone on entering the profession shall be required to pass one complete examination in every branch of the

medical art, which ordeal alone shall entitle him to practise. Another feature of any acceptable Bill must be the subordination of the corporations to the interest of the public and the profession. We want a less number of corporations. One thing is clear, that bodies which can confer nothing but a licence will have no *raison d'être* when the licensing power is deposited in one State-constituted body. At any rate they will have no right, their sole use and function being superseded, to occupy seats in the Medical Council, which are needed for direct representatives of the profession. We want a fusion of medical corporations. We would not destroy one of them; but would merge them into one. We are longing to see all the Societies merged into one, and expect nothing but an accession of good and strength from the fusion. Why should we not do the same with the numerous and rival corporations?—fuse them in each division of the kingdom into one great College or Faculty of Medicine. Let it be remembered that we are paying very dearly for so many rival corporations. Particularly, they are answerable for two things—the exclusion of practitioners from the General Medical Council, and the wish to subordinate this Council to the Privy Council. It is because the corporations are so numerous and so materially interested in the examining system of the country that their work is thought to require supervision by the Privy Council. We must, by all means, have a Medical Council that can be trusted by the State. In order to this, and in order to further the recognition of the unity of medicine, we would urge the corporations, in their own interest, to support those changes in the Medical Council called for by the unanimous voice of the profession.

For the third time within three-and-thirty years our great scientific parliament accepts the hospitality of Liverpool. Host and guest alike will remark many changes in each other since their last meeting in 1854. Both have increased in size, in importance, in intellectual and social development. Both have seen and suffered revolutions in their respective spheres. But the meeting will be all the more hearty on either side for the vicissitudes which both have undergone; and Liverpool will display a scientific spirit and an enlightened munificence even greater on this third occasion than on the first, when, still animated by the traditions of ROSCOE, she endeavoured, and not without success, to resuscitate the union of intellect and commerce exemplified in the oligarchies of mediæval Italy. Impaired as her resources have undoubtedly been by the American war and its commercial sequelæ, she is still, even in her comparative poverty, better able to perform the part of host than any other English city. Above all, her alacrity to promote science retains all its old life, as indeed befits a mighty seaport which owes much of its prosperity to steam and electricity. So that, all things considered, the British Association will this year hold its session under auspices as favourable as any in its annals.

Professor HUXLEY will be president, and the proceedings will be opened by an address which, it is safe to predict, will reward the attention which it is sure to command. The very combativeness which is part of Professor HUXLEY's mental constitution well qualifies him for giving the tone to scientific discussion—a tone sharp, distinct, acutely defined, but not necessarily harsh or discordant. His address concluded, the Association will resolve itself into its seven sectional departments, whose proceedings will commence on Thursday, the 15th inst., at 11 o'clock, and be resumed at the same hour on the Friday, Saturday, Monday, and Tuesday following. The Mathematical Section will have as president Professor CLERK MAXWELL, of Aberdeen; the Chemical, Professor ROSCOE; the Geological, Sir PHILIP EGERTON; the Biological, Professor ROLLESTON; the Geographical and Ethnological, Sir RODERICK MURCHISON; the Economic and Statistical, Professor JEVONS; and the Mechanical, Mr. C. B. VIGNOLES. The addresses delivered by each of these presidents will have all the interest and attractiveness belonging to men who are experts or pioneers in their special departments, and will give to the subsequent discussions the same high and independent tone which Professor HUXLEY will have previously imparted to the proceedings as a whole. Hardly if at all inferior in interest will be the two evening lectures annually delivered to all the members and associates: the first on Friday, the 16th, by Professor TYNDALL, "On the Scientific Use of the Imagination" (a most important theme); the second on Monday, the 19th, by Professor RANKINE, "On Stream Lines and Waves in connexion with Naval Architecture"; while the address to working men will be given on Saturday, the 17th, by Sir J. LUBBOCK, who will discourse on his favourite topic—"The Savage Races of the World."

The recreations of the members and associates will be directed by his worship the Lord Mayor, who will hold two receptions at the Town Hall, one on Thursday and one on Friday, in the evening. Advantage, moreover, will be taken of the presence of so many *savants* in Liverpool to unveil the statue of the Premier—a ceremony which will occur on Wednesday, the 14th inst., be preceded by a luncheon, given by the Lord Mayor, and attended by the leading members of the Association. The annual *soirée* will be held on Tuesday, the 20th; the final meeting on the day following, and the proceedings will close with a grand concert in the evening at St. George's Hall. Excursions during the remainder of the week will give the appropriate signal for the dispersion of the numerous and distinguished assemblage, which will, doubtless, have broken up with the conviction that a more memorable meeting of the British Association has never been held.

THAT many animals of the same species live together in large companies or associations, exercising in the construction of their habitations and in the storing up of their food skill and foresight that equal if they do not in many cases surpass those of man himself, is familiar knowledge. Again, it is well known that almost every animal boards—if we may use the expression—a number of others at his own expense, supplying them with food which they abstract from his tissues and juices. Some of these parasites, like the leech, live independent lives—constituting, in fact, the free lances of the animal kingdom, attacking whom they will, and, having satisfied their appetite, detaching themselves to search for a new victim. Others, again, more fixed in their habits, penetrate the tissues of their prey,

and, securely ensconced in the connective tissue, bone cavities, brain, liver, or other organ, continuously absorb the nutriment they require from the living animal. In a recent lecture delivered before the Royal Belgian Academy of Sciences, M. v. BENEDEN has drawn attention to yet another kind of association, that, like the last, commonly occurs amongst animals belonging to altogether different classes, and to which he has applied the term Commensalism. The *lien* that exists in such cases is not always at first sight obvious, though probably it is connected with the supply of food, the Commensal either consuming the same food as the host, and therefore, as the name implies, being a companion of his table, or being placed under circumstances peculiarly favourable for acquiring its own. M. v. BENEDEN divides Commensals into the fixed and the free, the former being represented by the Tubicinella, Diadema, Coronula, or other Cirripedes, which, as already stated, are found attached to large animals like the whale, the movements of which constantly bring them into relations with fresh supplies of aliment. The free Commensals constitute the most numerous as well as the most interesting division, and various examples may be cited of their occurrence. One of them is met with in the form of a small fish termed the Fierasfer, which was discovered by MM. QUOY and GAIMNARD in the voyage of the *Astrolabe*, and which inhabits the cavity of a Holothuria or sea-cucumber. This little fish is elongated and compressed like the blade of a sword. The interior of the Holothuria seems to be rather a favourite resort for various animals, as, in addition to the Fierasfer, M. SEMPER has discovered a Pinnotheres (crab), Eulima, Stylifer, and a nondescript acephalous animal. Another singular instance of commensalism is met with in a Siluroid of the genus Platystoma, which lodges in the cavity of its mouth several small fish formerly regarded as young Siluroids, but which have been shown by Professor REINHARDT to be adults of the genus Stegophilus. In the mouth of another fish, an Indian fish, the Stromatæus, Dr. BLEEKER discovered a small crab of the genus Cymothoa. Dr. COLLINGWOOD, again, has seen an instance where a fish, instead of being the protecting, is the protected Commensal: one, to which he has not given a name, inhabiting the body of a large Anemone; whilst another fish, the Caranx trachurus, lives in the interior of the beautiful Medusa called the Chrysaora. The Pinnotheres crab, again, is well known as constantly taking up its abode within the shell of living Lamellibranchs, as the Pinna, Modiola, and Avicula. Some amphipodous Crustaceans live in a true crystal palace, inhabiting the transparent bodies of the Tunicata, Salpa' Beroe, and Pyrosoma. The Stylifer, which, according to GWYN JEFFREYS, constitutes a distinct group of Gasteropods, are found as free Commensals sometimes in the mouth, sometimes in the lower parts of the digestive cavity of various Asterias, Ophiuridæ, Comatula, and Holothuriadæ; and lately M. STIMPSON, of Charleston, has described a Gasteropod analogous to a Planorbis, which lives as a Commensal on the body of an Annelid (Ocoetes lupina). This relation between two or more animals, often of very different grades of organisation, thus presents many features of interest, and it is not unlikely that many remain to be discovered.

No human power is able to cope with the horrors of the present war. After actions such as those before Metz the ground for miles is covered with the dead, the dying, and the disabled; the roads and railways are all occupied with troops, transport, and munitions of war, and therefore impassable. Let anyone picture to himself the temporary disorganisation into which the best regulated of our hospitals would be thrown by the sudden appearance before its gates of four or five hundred wounded men; and then endeavour to realise what it must be where twenty or thirty times that number of bleeding and mangled human beings are lying on the ground and in woods, mingled with the corpses of horses and all the shattered débris of battle. Even if all the roads were clear, the means of transport abundant, and the field hospitals innumerable and well equipped, it would require a perfect army of men with wheeled vehicles and stretchers to separate the living from the dead, bind up their wounds, and remove them from the field. No organisation that human ingenuity could devise could effectively cope with such an amount of work. As it is, with all the voluntary help which thousands and thousands of men and women bring to the aid of the regular medical services and their attached corps of sick attendants, the wounded have passed through all the horrors of thirst during an exposure for several days to the burning rays of a midday sun; their pain-stricken frames have been bared to the chilly dews of night, and the awful discomfort of storms and heavy falls of rain. Confronted with the terrible scenes which this war has presented, brave men have felt appalled and paralysed. If Germany had taken into the field every medical man, and if they had all worked from morn till eve, there would still have been an enormous amount of preventable misery and suffering that must pass unrelieved. Even with the arrival of succour, there is the torture of transport to be encountered, and the risk and danger of hospital fever or gangrene being engendered by the overcrowding of the wounded—a danger so formidable as to render the chances of recovery more favourable to the poor wretch that crawls unnoticed beneath the cover of a hedgerow than to another lying in the foul, infectious atmosphere of an overcrowded surgical ward. To aid in dispelling the discouragement produced by the heavy losses, statistics of the battles of 1813–14 have been published in the German papers, and the great mortality of the wounded caused by neglect and imperfect sanitary science. In the autumn of 1813 one-half of the wounded perished in some hospitals, in most of them a third or fourth. The loss in killed and wounded averaged from 20 to 50 per cent. Already we have ugly rumours of the outbreak of typhus, pyæmia, and hospital gangrene among the French at Metz. The town is described as filled with wounded; and, to complete the misery of the invested army, there is scarcity of food. It is impossible to procure fresh meat; and with 100,000 men and 12,000 or 15,000 wounded shut up in this French stronghold, it would be difficult to exaggerate the consequences to men whose constitutions will be enervated by scurvy. At Mayence the number and condition of the wounded beggar description; and it is impossible that due judgment and vigilance can be exercised when we consider the number and nature of

the injuries undergoing treatment. One little fact will give a slight revelation of the abyss of misery into which Central Europe has been plunged by this war. According to the *Spectator*, Birmingham and Sheffield have been literally stripped of surgical instruments, till there is not in Sheffield a pair of artery forceps; and the trade "cannot be suddenly expanded." Humiliated by the terrible spectacle of woe, one's thoughts may well be directed to that great Physician who "had pity on the multitude." We would earnestly exhort everyone to participate in the work of mercy and humanity, and to aid the labours of the surgeons and sick nurses by collecting funds and material for alleviating the sufferings of the wounded.

Medical Annotations.

"Ne quid nimis."

THE PUBLIC AND POST-MORTEM EXAMINATIONS.

THERE has been another application for a summons, this time against Dr. Moxon, pathological registrar of Guy's, by a labouring man, whose child, having died in the hospital, had been examined after death in the usual manner. Mr. Benson, the sitting magistrate, referring to a similar case which had come before him a few weeks previously, is reported to have said that in that instance the complainant had withdrawn the application because he could not take the case to a superior court. He went on to say (so *The Times'* report has it) that "he would commit Dr. Moxon or the whole of the medical profession if the applicant would bring proof that he would prosecute at the trial." But this the applicant, having no money, could not do.

We cannot believe that Mr. Benson made use of an expression which would painfully suggest the famous rejoinder to the Ipswich magistrate:—"There aint a magistrate going as dont commit himself twice as often as he commits other people." A paid officer of the Crown would naturally avoid a tone which could only tend to excite a feeling hostile to the profession which spends so large an amount of its time in gratuitous services to the poor. A functionary whose life is passed in witnessing the evils which result from ignorance would not, we are sure, pander to prejudices which are strong in proportion as the holder of them is ignorant. We think it a pity, therefore, that this statement has not been contradicted.

On the other hand, we hear with regret that the authorities of Guy's are likely to pass a regulation that the hospital will reserve to itself the right of making post-mortem examinations in all cases of death occurring in the hospital, subject only to consideration in certain exceptional cases. We regret this only because the time is not yet ripe for such a measure, and it is to be feared that the effect of this rule would be to curtail seriously the sphere of usefulness of this noble charity.

We are convinced that, for the present at least, a conciliatory mode of dealing with the difficulty is best; and we would lay special weight upon the necessity of carrying out the requisite examinations, and the subsequent arrangement of the corpse, in a manner to avoid the chance of any outrage to the feelings of the relatives. Infinitely more care in this respect is taken in continental hospitals than in our own, and their example is well worth imitating, not only as a means of avoiding painful scenes at the police-courts, but still more for the sake of decency and order.

THE LATE APPOINTMENT AT NETLEY.

THE star of Germany is in the ascendant at present, and everyone is praising the wonderful organisation of the Prussian army. With the inevitable shortcomings of their medical service, it is confessed on all hands that it is the most perfect in existence as regards its working powers. We do not find that the German doctors have military governors to manage their hospitals for them. We turn to practical England, however, and find that it is deemed essential to have a military head to its chief army hospital; but it is not thought necessary that he should bring to the task any great elevation of rank or experience in administration. The present commandant at Netley is a *brevet lieutenant-colonel*, while his subordinate, the inspector-general, besides having administered with considerable success the affairs of the whole medical service of the British army in India, has had, we believe, for upwards of four years the relative rank of *major-general!* A contemporary, possibly intending a certain amount of irony which does not by any means lie on the surface, announces that Lieut.-Colonel Maclean is the new commandant, and that the only difference between the past and present arrangements is, that the authorities have now appointed a commandant nearer in rank to the inspector-general! The reverse is exactly the fact. We had ignorantly imagined that the most successful results in a surgical and sanitary point of view that have ever been attained in war on the largest scale were those published by the medical officers of the American service, who managed their own affairs without any extraneous aid from military governors or commandants. But then England is a practical nation, and English statesmen are practical men, and they cannot for the life of them see that the safety of the patients or the economy and efficiency of the hospital administration ought to enter into the question at all. What can a doctor, even if he had the relative rank of field marshal, know about hospital administration? His rank is well known to be all moonshine, and so is his experience or fitness to do anything beyond writing a prescription.

THE PRISONS OF PARIS.

AT a time when sources of internal weakness are as far as possible being removed from within the fortifications of Paris by the strong arm of a military dictator, and the so-called "dangerous classes" have received notice to quit their accustomed haunts, it will not be without interest to consider what is the condition of the prisons of Paris, and the number of their convicted inhabitants; and for this purpose we are able to avail ourselves of a recently-published pamphlet by a member of the medical profession. Mr. Tempest Anderson (a bachelor of medicine, surgery, and science of the University of London, and a former distinguished student of University College) during a visit to Paris last year, took advantage of his father's official professional connexion with York Castle to obtain a recommendation from the British Embassy, by which he was fortunate enough to obtain permission to inspect the Paris prisons; and he has now briefly put together his notes upon the subject.

The prisons within the walls of Paris are six in number, two being only houses of detention for untried persons, and the others of correction for convicted prisoners, or of detention of those undergoing reformation. The Mazas prison, although only a house of detention for male prisoners before trial, is constructed on the separate system, and closely resembles Pentonville. There are six corridors radiating from a central hall, and each of these is three stories high; but the number of occupants is not given, and must of course vary very much. The Prison de Santé, in the Boulevard

Arago, has been open only two years, and is the model prison of Paris. It consists of two parts, one on the separate system, containing 480 cells, and the other on the associated system, containing 512 cells. The prisoners here are men sentenced to short terms of imprisonment, and the cells both here and at Mazas are fitted with all the sanitary requirements which modern ingenuity has contrived. The Conciergerie is chiefly interesting for its historical associations, though the old part is now disused. The cells are 66 in number, and are devoted to the detention of prisoners awaiting their trial at the Palais de Justice adjoining. The Prison des Jeunes Détenus receives all boys convicted under the age of sixteen years, some of whom are only sentenced for a few days, while others are detained, as in our reformatories, for some years. Among these last are also boys of vicious propensities, but unconvicted, who have been sent by their parents to be educated. The Prison de la Roquette is the most important of the convict establishments, as it receives all male prisoners sentenced to terms of three months and upwards, and is therefore strongly guarded by military. The prison is constructed for 300 convicts, but usually contains 400, and there is no attempt at separation or classification of the prisoners. At the time of Mr. Anderson's visit the whole 400 were walking about in the central yard, talking and eating their suppers. The number of cells being only 300, the remainder of the convicts sleep in associated dormitories; and it is therefore obvious that serious mischief might at any moment arise should the military guard be withdrawn during periods of public disquietude.

The female convicts are lodged in the Prison of St. Lazare, an old and overcrowded building, divided into three sections, containing (1) the ordinary female prisoners, both untried and convicted, numbering from 460 to 500; (2) prostitutes, averaging 500; and (3) girls under sixteen, usually 60 or 70 in number. The sanitary arrangements here appear to be bad, and the discipline lax, since, even after sentence, a payment of three sous a day will exempt a woman from work. Having regard to the excitability of the female mind, and the excesses to which women run when once roused, the sources of danger appear to be hardly smaller here than at the male prison.

Mr. Anderson has appended to his pamphlet some valuable remarks upon the ventilation of the hospitals, and the water-supply and drainage of Paris, to which we shall take another opportunity of referring.

EVOLUTION OF MALARIA BY SANDY SOILS.

THE evolution of malaria by sandy soils is a question of great interest, and it has not been so fully elucidated but that additional light is very welcome. An interesting and instructive contribution to our knowledge of the intimate character of the malarious sandy soil of the Landes of Gascony has recently been made to the French Academy by M. Faye, and from it we learn the conditions to which the development of malaria in these plains is owing. At a short distance below the surface of the Landes (usually three feet or thereabouts), is a thin, impermeable, brown stratum, of stony texture, known as the *alios*. Beneath this stratum is an undetermined depth of sand of like character with that which lies above it. The *alios* is formed of the same sand cemented together with organic and ferruginous matter; and its formation would appear to be owing to the gradual annual descent of the surface-water after the winter inundations of the plains, and the decomposition of vegetable matter contained therein. This impermeable stratum retains a large quantity of water in the subsoil, laden with vegetable matter in process of slow decomposition, and to this condition of the subsoil the evolution of malaria is due. By subsoil drainage, restraining the growth of fern and other plants which fall in part yearly, and encouraging the cultivation of the maritime pine, the malarious properties of the subsoil can be entirely done away with. Below the *alios* abundant limpid water is found; but the water retained above the stratum is yellow in colour, and unfit for consumption. M. Faye lays it down, as a principle deduced from observation, that where an impermeable stratum of soil is found a short distance beneath the surface, intermittent fever will be developed if the subsoil be charged with decomposing vegetable matter; typhoid fever if it be charged with decomposing animal matter.

UNQUALIFIED ASSISTANTS.

THE question of unqualified assistants is a somewhat difficult one. It is unquestionable that there are a great many unqualified assistants who are very valuable servants to their employers, and whose misfortune it is, rather than their fault, that they are unqualified. Many such men have made the most of their opportunities, and have become very useful for the ordinary routine of practice. Still it is very evident that we cannot have the whole profession and Parliament moved to make medical education more perfect, and medical examinations more stringent, and at the same time admit that men can be properly qualified for medical practice who have had little or no special education and who have passed no examination whatever. A correspondent (Spes) in THE LANCET of August 6th suggests giving a certificate of qualification to unqualified medical assistants. But such a proposal cannot be entertained. We have all arrived at the opinion that the present examinations for licences are not satisfactory. Are we to have a still lower examination adapted to the convenience of unqualified assistants? It seems to us, with every pity for men in the incomplete position of unqualified assistant, that it would be very unjust to those who qualify, and to the public, as well as absurd, to create a medical grade below that which is created by passing our present licensing boards, or any State examining board that may replace them. We agree with another correspondent, that to give a certificate of qualification to even the deserving among unqualified assistants, excepting upon condition of passing the ordinary examination, would be a step backwards. We must have no perpetuation of the idea of an inferior class or grade in the profession. We must be peers and equals — there must be no continuation of the habit of looking down. Should there then be no unqualified assistants? We do not go so far as this. There is much to be said for all students passing through a short assistantship to a general practitioner, as well as a short pupilage. There are lessons to be learned in this way, which cannot be learned in walking hospitals and following the most gifted physician round his ward. But the unqualified assistant should act entirely under the supervision and responsibility of a qualified practitioner, and should reside under his roof. When an assistant has to conduct a branch-practice or occupy a distinct house—in other words, to act on his own responsibility—he should be qualified. It is not just, we repeat, to the public or to the medical practitioners of a neighbourhood to set up a medical house or establishment with all the appearances of legal qualification about it, and to have it occupied with an assistant who has not given the ordinary guarantee of efficiency. This view may seem harsh to a few men whose case is hard, and who do not see their way clear to qualify. But exceptional cases cannot be the subject of legislation, and we should be doing even them but a poor kindness if we advocated the establishment of

an inferior grade in the profession that was to be despised and never to act in any independent capacity. The true friends of unqualified assistants are those who urge them by study and perseverance to qualify. One concession might be made to those of a certain age: to exact no evidence of any particular course of study, but only to examine them as to their actual knowledge.

A NEW SPHYGMOSCOPE.

IN the *Centralblatt* of the 25th of June, M. Landois gives an account of a new sphygmoscope, which so far differs in construction from those that have been hitherto suggested that the movements of the pulse act on a column of gas, the undulations of which can be recognised by the movements of the flame resulting from the ignition of the gas as it issues. M. Landois observes that the nature of the dichrotic curve or secondary elevation in the pulse so commonly depicted has not as yet been satisfactorily determined; some believing it to be a real undulation, others that it is to a certain extent an artificial curve, and due to a kind of recoil of the instrument. None of the tracings obtained by the various forms of instruments hitherto suggested are free from this peculiar undulation, whether we take the mercurial column, as in the instrument of Chelius; the column of water, as in that of Naumann; the elevation of a lever, as in that of Vierordt; or, lastly, a spring, as in that of Marey. The instrument suggested by M. Landois appears to be a small metal chamber, the edges of which fit closely on the wrist or elsewhere, whilst a small space is left between the skin and the inside of the chamber through which either ordinary gas or hydrogen is transmitted from a gasometer at a very low pressure. The gas issues by a capillary glass tube attached to the other extremity of the chamber, and can easily be ignited. It is interesting to find that the movements thus rendered visible agree precisely, both as regards the principal curve and the secondary undulation, with those exhibited by means of Marey's sphygmograph.

MEDICAL CERTIFICATES OF CAUSES OF DEATH.

AN inquest was lately held at Gaywood, in the district of Freebridge, Lynn, whereat disclosures were made which illustrate only too forcibly the remarks we offered last week upon the caution that ought to be exercised by medical men in reference to the certification of causes of death, especially where infants are concerned. From a report in the *Lynn News* of the proceedings at the inquest, it appears that a married woman, who had previously buried three children under circumstances which have given rise to much evil report of her conduct, has recently lost a fourth child, whose death is alleged to have resulted from neglect on the part of the mother. According to the report before us, a medical certificate of the cause of the child's death was obtained, and produced to the registrar of deaths for registration purposes. And had it not been for some discrepancy which attracted the registrar's attention, there is reason to suppose that this poor little withered specimen of humanity would have been quietly laid with his three brothers or sisters, and nobody would have been any the wiser. The registrar's vigilance led to the coroner's inquiry, and the practitioner who certified the cause of death stated at the inquest that, although he had never in his life seen the deceased, he gave the certificate to an old woman who applied to him for it on the ground that a reference to his books confirmed the woman's statement that his assistant had seen the child some time previously. Obviously this is a very loose as well as dangerous kind of practice. We fear there is too much "taking for granted" in the certification of causes of death, and we can hardly believe that medical men who thus allow their good-nature to get the better of their discretion are fully aware of the risk which they incur thereby. The 41st section of the Registration Act decrees "That every person who shall wilfully make, or cause to be made, for the purpose of being inserted in any register of birth, death, or marriage, any false statement touching any of the particulars herein required to be known and registered, shall be subject to the same pains and penalties as if he were guilty of perjury." It is not to be wondered at that both coroner and jury expressed themselves rather strongly on this matter, and there is little doubt that the practitioner thus unfavourably brought into notice will be more careful in future. But we are concerned that such cases happen at all, for they tend to discredit the accuracy of the national death returns; and moreover they diminish the protection to life against crime which the registration law was designed to give. Good-nature is an amiable quality, and we do not desire to discountenance it in the profession, but a hard and fast line ought to be drawn in favour of truth. Certificates of causes of death are grave things to trifle with, and we once more urge our medical brethren to resolutely decline certification in all cases where every particular to be certified is not absolutely within their own knowledge, or vouched for by someone in whom they can place perfect confidence. And we make one more appeal to the Registrar-General to modify, as we have previously suggested, the form of certificate which he issues to medical practitioners, so that these printed documents may no longer be traps to the unwary.

THE "BUILDER" AND THE MEDICAL PROFESSION.

THE highest authority bids us to look well to the remedying of our own defects before we venture to condemn the shortcomings of others; and of the wisdom of this injunction it is well to be occasionally reminded by the sharp lessons of experience. The *Builder* quite forgot this the other day, when it was administering that reproof to the medical profession of which we last week took account. Anyone reading our remarks must have observed that we held a purely defensive line, abstaining from carrying the war into the enemy's country, as we might fairly have done. As is not uncommon in such cases, our reticence has been rewarded by the edifying spectacle of "the engineer hoist with his own petard." In other words, the *Builder* of Saturday last says "Thou art the man" to the profession it represents when it puts its finger upon one of the most prominent of our sanitary defects—certainly one which helps very largely to sustain the high death-rates of towns, and which therefore should come into the category of "obstacles to sanitary progress." The city of Bristol, says the *Builder*, was not long since written up by Dr. Budd and *The Times* for the excellence of its arrangements for the detection and stamping out of disease, yet latterly Bristol has been one of the most unhealthy towns in the kingdom. The cause of this unhealthiness is that "the sewers open directly into the river," and that "*the main sewers are without adequate ventilation.*" It may be presumed that the *Builder* has put these last words in italics as conveying the strongest proof of defective sanitation in Bristol. To obviate the defects, it is urged that the mouths of all the open sewers should be closed, and that there should be abundant and free ventilation provided, especially at the upper ends of all the sewers, "remembering that otherwise sewers and drains are flues for foul gases to enter the houses." Now to whom is this sound but rather elementary advice given?

Not to the medical sanitary officers of the city, but to the "local surveyor." That is to say, the present unhealthiness of Bristol has its origin apart from and independent of all that the medical authorities can do, and lies entirely within the province of the sanitary engineer. Will the *Builder* say that Bristol is an exceptional case of this disregard of the first principles of sanitary science on the part of "local surveyors" and engineers? We rather believe that the neglect referred to is very widely spread, and that great sickness and loss of life have been the result. Indeed, when we think of the way in which a large proportion of our dwelling-houses, public buildings, and drainage works are designed and constructed—how in them the requirements of true sanitation are habitually ignored, or subordinated to less vital considerations,—we are tempted to reply to the *Builder's* appeal for the more active co-operation of the medical profession in sanitary matters, that it will come with better grace when the class of which our contemporary is the mouthpiece has recognised and acted up to what sanitary progress requires at its hands. In Bristol the medical authorities have displayed an amount of energy and skill in combating disease which have drawn forth well-merited encomiums from those best qualified to judge of the effect produced. But the shortcomings of the engineers have neutralised the efforts of the medical staff, and the death-rate is excessive. When next the *Builder* is moved to deliver a homily upon sanitary matters, our friendly advice is that it should bear in mind the fact just noted.

THE MEDICAL COUNCIL AND THE BRITISH MEDICAL ASSOCIATION.

DRS. PAGET, Stokes, Acland, Rumsey, and Embleton have resigned their seats on the Council of the British Medical Association, in consequence of the action of the Direct Representation Committee in the recent agitation, and of the approval of their conduct by the Association at large. This step on the part of these gentlemen may be a natural and logical consequence of recent events; but it is a serious one—serious both for the Medical Council and the British Medical Association. The Council of the Association does not always act in a way to retain the respect of the profession; and the loss of five such members from its numbers will certainly be a trial to it. At the same time, as between the Direct Representation Committee and the resigning members of the Council, we entirely sympathise with the former. The resignation only makes clear what had better at once be recognised—namely, the gulf which exists between the views of the Medical Council and the medical profession in regard to the amendment of the Medical Act. It is practically a struggle between the old corporations and an antiquated order of things on the one hand, and the medical profession on the other, which is bent on its own elevation and the removal of scandals connected with inefficient and interested examining boards. It is well, if we cannot work together, that we take sides, and fight the battle out. Nobody doubts that these five gentlemen wish to advance medical education; but they have a strange dread of members of their own profession, unless they happen to belong to one of the councils or cliques of the nineteen bodies which have been found wanting. The idea of representing the profession directly on the Medical Council is so repugnant to these gentlemen that they have resigned their official connexion with the British Medical Association because that body supported it. Dr. Paget and others have latterly come round to the idea of indirect representation—that is, representation through a corporation. But to see a practitioner at the Council board without the badge of one of the nineteen bodies upon him would seem to them a catastrophe to be averted by any step, however serious or unseemly. This is a poor compliment to the great profession which gives all the corporations any importance they possess.

PROFESSOR HALFORD'S "DISCOVERIES."

AT Melbourne, "a preliminary meeting of gentlemen favourable to a project for the presentation of a testimonial to Dr. Halford in recognition of his discovery of an antidote for snake-poison," was held on the 20th December, 1869. Among the speakers was Dr. Barker, who announced that "the method of administering remedies by injection was entirely new." Thereupon Drs. Fitzgerald and Wilkins proposed as an amendment that "the object of the testimonial should be to recognise the discovery of the method of treatment by injection rather than of an antidote to snake-bite." This amendment (adds the reporter of the *Melbourne Age*) was "agreed to by the meeting."

When this report reached us, we confess we were at once astonished and amused. That a man in Dr. Barker's position should gravely give Professor Halford credit for having "discovered" the mode of administering remedies by injection, and that Professor Halford should, with equal gravity, accept the compliment and allow himself to be rewarded by a testimonial on the strength of it, appeared to us either a capital joke or an exhibition of ignorance which was itself no laughing matter. We inclined, however, to the former view, and wrote the little paragraph entitled "Discoveries at Melbourne."

Our good-humoured comments seem, however, to have been taken in very serious part there; and Professor Halford, at an early meeting of the Medical Society of Victoria, read a paper in reply to them. We have perused that paper as well as the remarks made upon it at the meeting; but we cannot see that Dr. Halford has put himself right with his medical brethren either in Victoria or elsewhere. Discreetly enough, he makes no reference to his being credited with the "discovery" of the mode of administering remedies by injection, or to his having tacitly acquiesced in the proposal to present him with a testimonial in recognition of it. He practically disavows that "discovery," in spite of Dr. Barker's assurances of his having made it; and proceeds to vindicate his claim to having found a counter-agent to the poison of snake-bite. He gives us twenty "cases" in which men, women, or children were so poisoned, and of whom seventeen, after the injection of ammonia into their veins, recovered. Dr. Halford's standard of scientific induction is not a very exacting one; it is probably adapted to audiences composed of men who believe the administration of remedies by injection to be "entirely new." He has not adduced a single case in which genuine poisoning seems to have been neutralised, or in which the administration of ammonia by the mouth would not have produced precisely the same effects as its injection into the veins. So far as a tolerably extensive examination of the "literature of the subject" enables us to judge, there is no recorded case of genuine snake-poisoning in which the injection of ammonia into the veins can be credited with any specific action. The experiment has been tried by men of scientific eminence, but cannot yet be said to have succeeded. Prof. Halford has still to square accounts with Dr. Fayrer, of Calcutta, who, after repeated and patient trials, found himself unable to announce to the Government that a remedy (to say nothing of an antidote) for snake-bite had been found. Professor Halford must master the laws of evidence—must be a little less open to the seduction of *post hoc ergo propter hoc* reasoning—before he can be admitted into court as a com-

petent witness. He has been placed in a false and far from pleasant position by the too facile audience he has given to flattering friends. He will find, like many others before him, that undeserved (if unsolicited) praise leaves behind it a keener sting than the most direct criticism, and that there is one reptile for the poison of which it is difficult to "discover" any antidote—the *puff*-adder.

MEDICAL SERVICE WITH THE BELLIGERENT ARMIES.

WE have received a communication from the Prussian Embassy the purport of which we hasten to lay before our readers. Application has been recently made to the authorities in Germany as to the conditions under which British medical men may temporarily enter their service. It seems pretty clear that, as far as the German Government is concerned at any rate, foreign surgeons cannot be required. Owing to the statements which have appeared in the public press as to the dire want of medical aid, and that volunteers who could speak either French or German would be received, there have been scores of applications to the Embassy. It is not the case, however, that a knowledge of French will suffice. No one need apply who does not *speak German fluently*. As regards the professional qualifications, it is necessary that applicants should be members of the Royal College of Surgeons and licentiates of the Royal College of Physicians, or possess equivalent qualifications to these two. No travelling expenses will be allowed to the volunteers, who are moreover expected to tender their service for the first fourteen days gratuitously.

These conditions are not very tempting, perhaps, but the members of the medical profession have never been backward in labouring in the cause of humanity; and there never was a time when their services were so much required as they appear to be now. As a field for surgical practice and the study of gunshot wounds and surgical injuries, the military and other hospitals offer vast opportunities, of which many hard-working earnest young men would be glad to avail themselves. There can be no doubt that hundreds of medical men and students would be willing to proceed to the aid of the wounded, and it seems to us that their technical knowledge and training could not fail of being at once utilised. Owing, however, to the fact that a really good colloquial knowledge of German is deemed essential, we fear that the supply from this country will be limited.

THE DENTAL PROFESSION.

THE special information addressed to students of the medical profession by ourselves and our contemporaries is deferred to next week; but we find that the *British Journal of Dental Science* has already given to its readers in the September number of that periodical a variety of information most useful to the intending student of dental surgery. We learn from the article on Dental Education that dental students may be divided into four classes, which are thus described:—

"1st. Those who enter with the intention of obtaining the diploma of Member or Fellow of the College of Surgeons, and also the diploma in dental surgery.

"2nd. Those who propose to take the diploma of Member or Fellow of the College of Surgeons only, ignoring and affecting to despise the dental diploma.

"3rd. Those who propose to take *only* the diploma in dental surgery.

"4th. Those who seek one of the American dental diplomas."

To the first our contemporary has little to say save to congratulate them on their resolve. With the second no sympathy is felt, and their number is stated to be small. The third class are reminded with perfect correctness that "the dental diploma is the only real qualification for a dentist; the only diploma that is an actual guarantee that he has been properly educated in his profession, and, as far as examinations can ever be a test of fitness, that he has profited by the course of study he has professedly passed through, and is qualified to practise as a dental surgeon;" whilst they are warned that no depreciation of the purely surgical diploma is intended, and are advised to pass the preliminary examination for the higher degree at once, so that the professional labour undertaken for the lower may count for the higher diploma. With regard to the fourth class, it is shown that if the object of crossing the Atlantic is *bonâ fide* study, no objection can be taken; but that if, as too often happens, the object of the few who resort to the Transatlantic dental schools is to cram their studies into the shortest possible space of time, and return as quickly as possible decorated with the letters D.D.S., then such a system is earnestly to be deprecated.

In conclusion our contemporary gives some words of good advice to the dental student, whom we cannot do better than refer to the article in question.

MIDDLESEX HOSPITAL.

AT a recent quarterly court of the governors of the Middlesex Hospital, Mr. J. W. Hulke, F.R.S., who has for some years filled the post of assistant-surgeon, was elected to the surgeoncy, rendered vacant by the death of Mr. Charles H. Moore; and at the same time Mr. Henry Arnott, F.R.C.S., was elected to the assistant-surgeoncy. Mr. Henry Arnott is, we understand, a nephew of Mr. J. Moncrieff Arnott, whose name was so long honourably connected with the Middlesex Hospital, and was a distinguished student of University College, whilst his more recent histological labours have made him favourably known among modern pathologists.

Dr. Headlam Greenhow, who has for many years zealously discharged the duties of assistant-physician to the hospital, was at the same court promoted to the post of additional physician—an honour well deserved in the present instance, and one for which more than one precedent has been set of late years on the surgical side of the house.

Dr. Burdon-Sanderson, F.R.S., another of the assistant-physicians of the Middlesex Hospital, has recently been elected to the Professorship of Practical Physiology in University College, but is not thereby compelled to vacate his medical appointment. In fact, we would rather regard Dr. Sanderson's and Mr. Arnott's appointments as the first steps towards an amalgamation of the two medical schools of University College and the Middlesex Hospitals, a result which would be beneficial to both, as affording extended clinical teaching, whilst it would be an advance towards the much to be desired reduction in the number of systematic medical schools in London, which has been so strongly advocated by Professor Huxley and others.

OVERCROWDING IN LONDON.

IT is a great pity that there is not a law compelling the rich to visit the wretched overcrowded dwellings in which so many of the London poor reside. This would be an effectual remedy. Mere law seems to do little. Only last week an inquest was held upon a child in Baldwin's-gardens. A family of seven were lying heads and tails upon a single bedstead in a small room of a house in which there are seven other families, probably in the same state. What wonder that the child was smothered, or that fever should be constant in this overcrowded court. In Whitechapel things are not any better. A sanitary in-

spector found eight persons, four men, three women, and a child, in a room the cubical contents of which was 1408 ft. If some fine gentleman were compelled to experience the "most offensive and overpowering stench" which pervaded this and many other rooms, he would go home with a determination to try to get it altered before he went again. In fact, if the greatness of the evil were adequately appreciated, the sympathies and intelligence of the more civilised classes, who alone have the power of altering this dreadful state of matters, would be aroused in favour of the inhabitants. How can people so depressed by noxious influences be expected to cope with the difficulties which surround them? With depraved appetites and exhausted nerves, is it a wonder that they should seek to drown their miseries in drink? Is it a wonder that they should be idle and good-for-nothing? When will the nation learn that it is as important to secure a healthy dwelling for the labourer as it is to give him work?

INFLUENCE OF DIET ON THE COMPOSITION OF BONE.

SOME very interesting experiments have been made by M. Papillon, and communicated to the French Academy. M. Papillon fed pigeons and rats with food containing small quantities of phosphate of strontia, phosphate of magnesia, and phosphate of alumina. These substances were given daily in small doses for several months without any visible effect on the health of the animals.

On afterwards making an analysis of the bones of the pigeons, there were found in a hundred parts of the ash of the bones:—

Lime	46·75
Strontia	8·45
Phosphoric acid	41·80
Phosphate of magnesia	1·80
Residue	1·10
	99·90

The ash of the bones of the rats furnished in like manner, in Specimen 1:—

Lime	41·10
Alumina	6·95
Phosphoric acid, &c.	51·95
	100·00

In Specimen 2—

Lime	46·15
Magnesia	3·56
Phosphoric acid, &c...	50·29
	100·00

It is very remarkable that strontia, magnesia, and alumina can be made to enter into the composition of bone by means of an appropriate diet. A fact of this kind is calculated to raise our hopes in the possibility of modifying the animal body by means of medicines. Possibly ossification of the arteries is capable of being stopped by an appropriate diet.

THE VACCINATION ACT AT CARDIFF.

A VERY large number of children remain unvaccinated at Cardiff, and the fact has been discussed at the board of guardians. The chairman proposed to take proceedings against a certain number of the offenders, but the clerk intimated that he thought he could "manage" the matter if it were left in his hands. And the clerk prevailed. Dr. Paine spoke very sensibly on the subject of vaccination and its consequences. He well answered the remark of the Rev. W. J. Thomas, that parents objected to vaccination because in many cases children were covered with boils after it, by saying that such consequences depended more on the child vaccinated than the lymph. We would ask Mr. Thomas—whom we do not understand to be an unreasonable objector—to study at his leisure the consequences of small-pox, the boils, carbuncles, ulcers, and blindness that follow it. Undoubtedly eruptions will occasionally follow vaccination, as they will any—the slightest—eruptive disease. But, *à fortiori*, they follow small-pox. The choice is not between vaccination and nothing, but between vaccination and small-pox, and between the consequences of vaccination and those of small-pox. And we are sure that, if Mr. Thomas acquaints himself with the alternatives, he will educate his parish in ten days out of any objection to the application of the Vaccination Act. Let us correct Dr. Paine's statement, or rather the newspaper report of it. He says that out of half a dozen vaccinations from the same lymph one or two would have the results described by Mr. Thomas. This is a very incorrect statement of the fact, as far as our observation goes; but, even if it were true, vaccination would be the least of two evils, and all sensible people would choose it. As to the wisdom or propriety of not enforcing the Vaccination Act, we do not see it. The Act is so reasonable; a person who contracts small-pox is such a huge public risk and nuisance that, wherever the Act is firmly applied, it is effective, and public opinion approves it. The number of the unvaccinated at Cardiff is so great as to suggest to us something unpopular or inconvenient in the arrangements for carrying out vaccination. The next time we hear of the Cardiff board, unless the clerk shall have "managed" to abate the number (419) of unvaccinated children, we sincerely hope that the chairman will have the hearty consent of the board, including that of Dr. Paine, to apply the Act.

A "HEADLESS HORSEMAN."

AT the battle of Woerth it is said that at the third charge of the Cuirassiers a horse was to be seen going at full speed with a headless rider. The mutilated corpse was that of M. de la Futzun de Lacarre, Colonel of the 3rd Regiment of Cuirassiers, who had been decapitated by a cannon-ball. Most people on reading this would declare that it was a mere sensation paragraph, totally devoid of truth. Such an occurrence, however, would not by any means seem to be an impossibility.

Not long ago we directed our readers' attention to an interesting article published by Dr. Brinton, surgeon to the Philadelphia Hospital, on the instantaneous rigidity which forms the occasional accompaniment of sudden and violent death, such as results from wounds of the head or heart. The startling phenomenon sometimes seen on the battle-field, of the retention in death of the last attitude in life, has not escaped the observation of military surgeons, although the facts connected therewith have not been studied with the attention that they deserve. Those who are familiar with the descriptions that were given of the Crimean battle-fields, particularly that of Inkermann, will remember that the various attitudes and the expression of the features of the dead were dwelt upon. The report of M. Chenu contains a short account, chiefly based upon the communications of MM. Armand and Périer, of the attitudes of the dead in battle during the Crimean and Italian campaigns. At Magenta a Hungarian hussar, killed at the same time as his horse, remained almost in saddle, resting on his right side, the point of his sabre carried forward, as at the charge.

This rigidity generally follows sudden and violent death, but not invariably. Dr. Brinton, among his cases, gives one of a very striking kind. He says that a man, wounded in the left breast at Belmont, Missouri, found a stray mule, which he succeeded in mounting. Whilst in the act of

riding the animal he died; but his corpse retained the upright mounted position, and on its becoming necessary to appropriate the mule to the use of a living wounded soldier, the body was found to be so firmly and rigidly set, as to demand a certain amount of positive force to free the mule from the clasp of the legs.

Dr. Brinton is led to conclude, from his own observations and those of others, that this battle-field rigidity is developed at the moment of death, and that the cadaveric attitudes are those of the last moment and act of life.

EGYPT AS A WINTER RESIDENCE.

WE have much pleasure in calling attention to an undertaking now on foot which promises to be very useful. Mrs. James Appleton, a lady who has many near relatives in the medical profession, and has herself undergone a considerable amount of hospital training, is about to establish at Cairo a sanatorium for those invalids who specially require such a climate, at once mild, bright, and clear, as is found in that part of Egypt. The movement is propitious, for we can hardly doubt that the French Mediterranean health resorts will be to a large extent inaccessible at any rate in the early part of the winter; consequently, the very numerous cases of chronic rheumatism, bronchitis (with and without heart complications), and the irritable form of phthisis, that would ordinarily find refuge in the South of France or Algeria, will be driven to look further a-field; and, in that case, we think they could not do better than think of Egypt. We understand that Mrs. Appleton has secured very first-class accommodation outside the town, and that the sanitary appliances of the establishment are excellent. She also offers her own assistance towards making the only difficult part of the journey (that from Alexandria, including the landing) easy for ladies, by meeting them, if desired, on board their vessels, and escorting them to Cairo. We sincerely wish that this spirited and sensible undertaking may have the success it deserves, and we are glad to see that Mrs. Appleton has secured the approbation of a large number of distinguished physicians. Those who desire further information can address Mrs. Appleton, Portdown House, Clifton-gardens, W., up to the beginning of October, when she starts for Alexandria.

FIRST-FRUITS OF RECENT LEGISLATION ON THE POOR LAWS.

THE guardians of the Greenwich Union have been the first to avail themselves of the provisions of the Superannuation Act. They have awarded, with the sanction of the Poor-law Board, an allowance of £100 per annum to Mr. W. Sturton, late medical officer of the Greenwich workhouse, in consideration of his having held the post for over twenty-five years. Dr. J. W. Walker, of Peterborough, has been elected in his place. The workhouse infirmary, to which Mr. Sturton was appointed surgeon in 1844, contains accommodation for about 1000 inmates; the salary is £80 a year, with extras for midwifery and vaccination. Gradually this allowance has been raised to £200, exclusive of the drugs, which have been provided by the guardians. Mr. Sturton's successor, Dr. Walker, is to have £300 a year, but without private practice, and must reside within three hundred yards of the workhouse, which contains the same number of inmates as formerly. Should the guardians build a residence for their medical officer in the establishment, the salary is to be reduced to £250. With the exception of the latter condition, the authorities of this union have shown very considerable rightmindedness; have acknowledged the just claims of the medical care of the poor; and will, we doubt not, discover in the future that a liberal expenditure in whatever favours the speed of recovery of the sick is the truest economy. To recent legislation, mainly guided by the labours of our Special Commissions on the Metropolitan Workhouse infirmaries, and to Mr. Brady and Dr. Rogers, we owe this one of the first-fruits of a better management of the care of the sick poor.

Medical officers anxious to avail themselves of the provisions of the Act should apply to their respective boards of guardians, with whom the question rests. It is extremely satisfactory to find that the guardians in Ireland are sufficiently alive to the importance of retirement at the proper moment, and are generally ready to entertain the applications made to them. The case of Mr. Sturton affords evidence that a similar amount of liberality is also likely to be general amongst the English guardians.

THE DANGERS OF THE STREETS.

UNDER this heading we lately referred to a letter from the house-surgeon of Charing-cross Hospital, which was published in the *Pall Mall Gazette*, and in which it was stated that in the month of July twenty-five cases of accident from street injury had been treated in the hospital. A few days afterwards the registrar of the hospital writes to the same journal, contradicting his colleague's statement, and affirming that it was 25 per cent. of all the cases of injury received which were due to street accidents, whereupon the house-surgeon returns to the charge, and persists in the accuracy of his previous assertion.

Surely this is a very small piece of business. It proves that there are other dangers besides those of the streets, and suggests that young men should think twice before they write letters to the daily press which, differing as they do materially in the essential statements, only agree in presenting to the eyes of the astonished public the names and legal qualifications of their authors.

THE FIFE AND KINROSS LUNACY BOARD.

THE gentlemen composing this body seem to have strange notions of the relative value of professional and menial service. They have raised the salaries of the matron and the storekeeper of the County Asylum to £50, while that of the assistant-superintendent, Mr. Morrison—an exceptionally accomplished and able physician—remains not more than £60. Mr. Morrison's education has probably cost him somewhere about a thousand pounds; his responsibilities are second only to the very onerous ones of the superintendent himself; and here we have a board, consisting of gentlemen presumably well educated, measuring his duties with those of the matron and storekeeper, and valuing them at £10 more per annum. The *Fifeshire Journal* protests against this valuation, and very properly urges the board to revise it, if only for the credit of a county which vaunts its possession of the oldest and in some respects the best appointed University in Scotland.

THE MEDICAL ARRANGEMENTS IN ST. PANCRAS.

THE Poor-law Board have most properly refused to sanction the proposal to dismiss the present district medical officers in St. Pancras, and to appoint others who should not be permitted to engage in private practice. The guardians have been requested to reconsider the question, and to increase the number of medical officers from six to eight. The Poor-law Board remind the guardians that the introduction of dispensaries will enable the medical officers to do their work in a more satisfactory manner; and they see no reason for making the sweeping changes the

guardians had proposed. It is a great pity that the Poor-law Board did not express their views before. The guardians have some reason to complain, as they did upon the receipt of this communication, of the delay on the part of the Poor-law Board in making known their wishes. The guardians have no doubt been placed in a false position. They are invited to introduce dispensaries, and probably they have given great consideration to the subject. They requested a conference with Dr. Bridges, who, although he explained his own views, did not of course put them forward in an authoritative way. Consequently the guardians felt at liberty to reject them if they pleased. They now find that they will not be permitted to have their own way, and, being particularly sensitive, take the dictation with anything but good grace. All this would have been saved, and the respect of the Poor-law Board increased, by a proper and timely exposition of their views. On matters of principle the Board have a right to be supreme, and it is only fair to guardians that their instructions should be clearly known.

HEALTH OF BRIGHTON.

A STATISTICAL report on the health of Brighton in the last June quarter has been prepared for the Town Council by Mr. N. A. Humphreys, from which it appears that the general health of the town was in a satisfactory condition, and that, but for the fatal prevalence of scarlatina and whooping-cough, the death-rate would have been as low as in the corresponding quarter of 1869. The fatality of these diseases was principally confined to the overcrowded portions of St. Peter's sub-district. Brighton has now seriously entered upon the important sanitary work of diverting its sewage from the sea in front of the town, and we may hope therefore that this long-standing source of opprobrium will soon be removed. The next bit of hopeful intelligence from Brighton should be the appointment of a medical officer of health.

AID TO THE WOUNDED.

IT is rumoured that the International Aid Society has applied to the Secretary of State for War for forty military surgeons to be despatched to either army as required. We are unable to state how far this may be a mere rumour; but we heartily concur in something of the kind being done. Whilst the Government of this country has been sending official communications to foreign ambassadors with the object of obtaining the permission of the French and Prussian Governments to allow a military surgeon or two to study military surgery and hospital administration at the seat of war, the Russian authorities volunteered to send a number of officers belonging to their medical service to the belligerent armies to assist in the work. This offer was, we believe, at once accepted; and the Russian army doctors have been adding to their experience and knowledge, and helping the medical staff at the same time. There are a number of military and naval surgeons in this country who would be only too glad to co-operate with their French or German *confrères* if permission were granted them to do so.

TRAPS TO CATCH SUNBEAMS.

WE averred last week that the big Indian barracks were a costly failure; that they were extremely hot, uncomfortable, and unpopular; and we added that it was the opinion of sanitarians practically acquainted with India that one of the not least forcible of the objections to them consisted in the fact that large sums of money had been expended in erecting these huge buildings in the plains which might have been laid out with infinitely more advantage in providing suitable barracks on the hills. From the document which has been recently put forth by the Sanitary Committee, it would appear that Dr. Beatson, who ought to know something of Indian affairs, ventured upon expressing his views as to these barracks; but the Sanitary Committee of the War Office evidently did not wish to enlighten us as to what his views really were. We are told that the question of barrack construction in India was not included in the subjects they had to determine. Dr. Beatson's views are said to be "exceptional"; but, as we are not favoured with them, we are unable to determine whether they are so exceptional as to be in harmony with those we have expressed. If so, we can understand the Sanitary Committee were not going to have their official music spoiled by the discordant notes of an officious individual determined on making his trumpet give no uncertain sound. It so happens, however, that if anyone will turn to Dr. Beatson's papers in the army medical blue-books, they will learn what his opinions really are. They are so exceptionally adverse to these palatial "traps to catch sunbeams" that they actually harmonise with those of the Indian authorities themselves, who have, we are informed, directed that no more of these solid structures are to be erected, and that the troops are to occupy only one of the stories.

PERMANENT APPOINTMENT OF POOR-LAW DISTRICT MEDICAL OFFICERS.

IT is somewhat amusing, and not a little instructive, to observe the manner in which Mr. Goschen's recent order for permanent appointment has been received by boards of guardians. Most of the parishes to which the order was addressed have been accustomed to elect their officers annually, and they speak of this deprival of their accustomed yearly patronage in tones of deprecation and despair, some even going so far as to propose a guardians' strike—a thing some cruel persons would not regard as an irreparable calamity. A speaker in Coventry indicated the nature of the evil which the order was intended to prevent. He said that they would no longer be able to control their officers, or prevent them ordering wine and other luxuries, if they were disposed to become very kind and extravagant. It is scarcely possible to have a clearer indication of the worry and annoyance to which medical officers liable to annual re-election have hitherto been subjected whenever they have felt bound to administer relief adequate to meet the claims of sickness. They have been too often made the creatures of relieving officers, who have not hesitated to ignore their recommendations in full assurance that they would be supported by the guardians. Heretofore the relieving officers were permanent, and the medical officers were not; but now both will be independent, and it will be a shame indeed if they do not between them protect the interests of the sick poor.

BARBER SURGERY AND HERBAL MEDICINE.

WE constantly receive shocking accounts in newspapers of persons dying under the most serious conditions, in cases in which regular medical advice has been either set aside or postponed till death was at hand. Two cases in point are now before us. In one, at Marsh-green, Pemberton, near Wigan, a collier sustained a compound fracture of the knee-joint, with laceration of the artery. His medical adviser, Mr. Roocroft, recommended amputation, and all the other medical men who saw the case agreed with Mr. Roocroft. But all this good advice was disregarded, and Mr. Roocroft was dismissed to make way for Mr. Woolstencroft, who is a barber, and has a plaster. The barber came, and, it is alleged, covered the smashed leg over with his plaster. In a few days

the leg mortified, and Mr. Roocroft was again called in. But it was now too late. He amputated, but with scarcely a hope of success. The poor man died in a day or two, a victim to his own folly, in which he seems to have been well supported by his wife. For such cases as this we see no remedy but the Education Bill. The other case is one in which a man with acute rheumatism was attended in Bedford by a herbalist named Crick, calling himself "a medical practitioner." A medical man was sent for when it was apparent that the patient was dying. The jury returned a verdict of "Death from natural causes."

MEDICAL CORONERS.

THE number of medical coroners steadily increases—a fact showing that the public is gradually adopting the views that we have long pressed upon its attention, that the office of coroner is one properly filled by a medical man. In the borough of Buckingham a medical candidate has just been successful in a contest with a legal one. The new medical coroner is Mr. Robert De'ath. Mr. De'ath is already deputy coroner for a division of the county of Buckingham. We congratulate him on his appointment, and have little doubt but that he will so act as to incline the county of Buckingham to follow the example of the borough, and elect medical coroners as occasion may arise.

THE CHOLERA.

WE regret to have to announce that cholera is extending in South-Eastern Russia, and that it has appeared at Rostow, on the Don, at Kertch, and at Odessa. The *Journal de St. Petersbourg* of the 11th instant announces 23 cases and 10 deaths from the epidemic at Rostow, and 9 cases and 4 deaths at Kertch. The appearance of the disease is alone announced at Odessa in a communication dated the 4th instant. The latest news from Taganrog states that from the 25th of June to the 18th of July 118 cases of the malady occurred in that town, 75 of which ended fatally.

QUESTIONABLE ECONOMY.

FOR more than a lifetime the Royal Navy has purchased its drugs and chemicals from that well-known corporation, the Apothecaries' Hall. We are informed, however, that the Admiralty have discovered that there is a cheaper market for rhubarb and castor oil than the establishment at Blackfriars, and that a lower tender than that which was made by the Apothecaries' Hall for these stores has been accepted. We scarcely believe that the First Lord desires to test the quality of drugs by experiments of their action on seamen's viscera, or that, if attacked by serious illness, he would relish the suggestion that the drugs supplied him had been purchased at the cheapest market.

TOBACCO FOR THE WOUNDED.

IF there be one fact that has been more frequently stated than another, it is that the soldiers engaged in this war—well or wounded—seek the solace of tobacco. The inhabitants of every nation manifest similar instincts, and one of the strongest is this desire to seek out some substance, the use of which may stimulate or soothe the nervous system. There is no deprivation which the habitual although not excessive smoker feels so much as the loss of tobacco; and soldiers of all nations, especially of the French and German nations, smoke it. It was a standing injunction of the first Napoleon that his troops should have tobacco, and they found it of the greatest advantage in the retreat from Moscow. We have been accustomed to look upon the German as fond of hard intellectual toil for its own sake; and men of abstraction and imagination, if we may judge from the prevalence of the practice of smoking among them, unquestionably appear to find an aid in tobacco. But the manhood of Germany has risen like a giant refreshed to undergo any physical exertion and hardship that may be required; and this war has taxed the physical energies of the strongest. The soldier, wearied with long marches and uncertain rest, obtaining his food how and when he can, with his nervous system always in a state of tension from the dangers and excitement he encounters, finds that his cigars or pipe enable him to sustain hunger or fatigue with comparative equanimity. Explain it as we may, this is physiologically true; and medical officers who would not be sorry to see the issue of a "spirit ration" discontinued, are compelled to allow that the moderate use of tobacco by soldiers in the field has several advantages. For the wounded it is probable that tobacco has slight anodyne and narcotic properties that enable the sufferer to sustain pain better during the day, and to obtain sleep during the night.

VACCINATION FEES.

THE public vaccinators of the New Forest Union lately applied to their board for an increase of remuneration in respect of vaccination. The scale of charges that have been in existence up to the present time is 1*s.* 6*d.* under one mile, 2*s.* above one and under two miles, and 3*s.* beyond the latter distance. The sum now applied for (the same having been previously suggested to the board by H.M.'s Inspector of Vaccination for the district) was 2*s.* 6*d.* for cases within two miles, and 5*s.* beyond that distance; but at a meeting of the board, at which the public vaccinators were present, they agreed to pay, and the medical men consented to accept, the sum of 3*s.* 6*d.* for every case, irrespective of distance, successfully vaccinated.

NURSE CHILDREN.

FROM the annual report of Dr. Ross, medical officer of health for St. Giles's district, we glean the following particulars relative to what is known as the Infant's Home, Great Coram-street. We believe this institution has always been a source of anxiety to the health officer, by reason of the high mortality amongst the little inmates. It appears that within the last two years the experiment has been tried of sending a majority of the infants received into the Home out to be nursed by women, who are paid about 5*s.* a week for each child. Dr. Ross finds that, out of 45 infants received and retained in the Home last year, there were 5 deaths, while of 97 put out to nurse 22 died. The death-rate was therefore, among those kept at home 1 in 9, and among those sent out 1 in 4. This result shows the experiment to have been unsatisfactory, and we presume it will not be continued.

THE crew of Her Majesty's gunboat, *Minstrel*, have lately been attacked with yellow fever, while at Nassau. These small vessels are frequently sent to very unhealthy stations, but are seldom provided with medical officers. Penny-wise parsimony of this kind requires no comment; and, of course, if assistant-surgeons cannot be procured, they cannot be sent.

WE understand that Professor Parkes intends proceeding to the Prussian Army, with the view of gaining any information bearing upon military hygiene that his observation may enable him to obtain. It is also rumoured that Mr. Simon is animated with a similar intention. If two such good and able observers proceed to Germany, we may confidently anticipate that the public will be greatly bene-

fited and interested by the reports which these gentlemen will no doubt contribute to the literature of medical and sanitary science.

WE are informed that another competitive examination for entry into the Naval Medical Service will be held early in November.

THE medical officers of the Dublin South Dispensary districts have had their salaries increased annually by £25, making a total of £125 each, independent of vaccination and other fees.

MR. LESAGE, of Dublin, forwarded last week to her Imperial Majesty the Empress of the French the second remittance of 10,000 francs subscribed by the citizens of Dublin for the relief of the wounded of the French army.

THE Conservators of the Thames, in their lately issued report, give it as their opinion that the period has now arrived when the provisions of the Conservancy Act in respect of towns which pass their sewage into the river should be fully carried out.

THE reduced temperature of the last fortnight has brought the mortality of London down from the high rate of the previous weeks. Diarrhœa continues to decline in fatality. Scarlet fever was rather less fatal last week than in either of the three weeks preceding.

WE understand that Deputy Inspector-General C. J. Gordon, C.B., and Surgeon-Major Wyatt, have received orders to proceed to France for the purpose of inspecting the army hospitals, and reporting on all points of interest connected with the surgical, medical, and sanitary matters of the present war.

REPORTS
ON
SEWAGE IRRIGATION.

No. I.

NOTWITHSTANDING the opposition of some eminent scientific men—notably of Mr. Hawksley, C.E., and Dr. Letheby—the question of sewage irrigation has made enormous progress during the session of Parliament which has just closed. The Committees of both Houses have taken a mass of most interesting evidence, and for the first time public authorities have been endowed with compulsory powers for the purpose of enabling them to purchase land upon which to dispose of their sewage. Although, happily, the adverse evidence of the distinguished gentlemen above-named failed to influence the Committees of Parliament, it may have a misleading effect upon the public mind, the more so as some of the most erroneous portions of the evidence have been industriously promulgated in pamphlets and paragraphs. The evidence which convinced Parliament was more than sufficient to establish the conclusions of the Royal Commissioners in favour of sewage irrigation, which we regard as the only reasonable, economical, and safe method of utilising the refuse of our large towns, and of preventing the wicked waste which is now so general. It is perhaps not too much to say that this method of utilisation ought to enable us to do without the purchase of a single ounce of food from any other country; and that the superior methods of cultivation required by it ought to give ample employment to every human being in these islands who requires work. The question then is, not whether sewage irrigation be desirable, but how it can best be carried out; and if for a moment we seem to turn our back upon this fact, it is only for the purpose of securing our rear against the futile attacks which have been made, at the instigation of vested interests, to impede the progress of the system.

In the first place, it is objected that sewage irrigation will not pay. We readily admit that profit is a fundamental condition of success. But is this objection either well founded or probable? We think not. Everyone knows the superior value of land which can be irrigated with common water. It is notorious that irrigation works have proved profitable in every part of the world: *à fortiori*, irrigation with water *plus* the manurial ingredients contained in sewage must be still more profitable, especially as the greater part of the manure is in the only form in which it can be assimilated by vegetation. Now if a manufacturer is convinced of the economy of a new invention, he does not give it up because his first attempts to carry it out are failures; but he patiently continues his experiments until, if the principle be sound, he eventually succeeds. It is no argument against sewage irrigation to object that it has not paid hitherto; even if that were true, which it is not. It is a new process of a very complicated kind. All the old-fashioned notions of the ordinary farmer, his pig-headed reverence for the practices of his forefathers, his ignorant belief in his own experience, will certainly obstruct the introduction of a method which will revolutionise the practice of farming. There must be new methods of cultivation, new kinds of produce, new successions of crops, and new methods of converting the produce into the forms most convenient for use. A new generation of farmers, possessing free and independent minds and vastly superior scientific knowledge, must be raised up before sewage irrigation may be expected to realise all of which it is undoubtedly capable; and it would be unreasonable in the extreme to hope that, under its present unfavourable conditions, it should always pay.

Nevertheless enough of practical evidence is accessible by which the public may be encouraged to persevere. At Edinburgh, which is one of the very worst specimens of economical irrigation—and bear in mind it is the economical question we are now exclusively considering,—the quantity of grass cut last year varied from fifty to seventy tons per acre, and the maximum value was £36 15s. per statute acre. At Rugby, Bedford, Norwood, Banbury—in all of which the management is in the hands of local boards—more or less profit has been made; whilst in private hands, which are more likely than public bodies to succeed in a new speculation of this kind, there are indications that success has been much more complete. Thus at Aldershot, land which six years ago was not worth 1s. an acre to purchase, has been laid out and drained by Mr. Blackburn for the reception of the camp sewage, and we are in a position to know that the produce of some parts of this farm are taken by contractors at an annual rental of £25 a year, a sum which is obviously sufficient to provide a wide margin for interest upon any sum which could possibly have been spent upon it. But, further than this, Mr. Hope, who has probably more knowledge of the value of sewage than any other person, has agreed to pay the authorities of the town of Romford £600 a year for the sewage of 6000 persons, to be delivered on his farm at Bretons; and although, at a rough calculation, the total expenses of the farm, including sewage, rent, interest on capital, horses, labourers, seed, &c., will not amount to far short of £30 an acre, he has no doubt whatever but that the enormous produce will still provide a profit; and if so, what an extraordinary result! This farm of 121 acres was thoroughly exhausted, it was not worth more than £4 an acre. It was worked for irrigation purposes by the authorities of Romford at an enormous loss. It formerly employed two men and a boy, and two horses. Now the average payment for wages is £25 per week, and there are fifteen horses continuously at work; and already some of the produce has realised the enormous income of over £70 per statute acre. Such, indeed, is the fertility produced by sewage irrigation, that Mr. Rawlinson has quoted an instance, upon which he stated he could con-

fidently rely, where the crop of cabbages and cabbage-plants yielded a gross return of £200 per acre.

Nor are there wanting other indications that sewage irrigation is really attracting the attention of landowners, to whom it is one of cardinal importance. Lords Salisbury and Warwick are about to establish irrigation farms, and other landlords are trying the system on a smaller scale; whilst we believe the gentleman who objected to sell his land at Reading, having been forced to do so, has made an offer to take the sewage of the town. We suspect that they will not be so simple as to give it him. On the whole, we may conclude that sewage irrigation ought and must eventually pay—that failures need not discourage its advocates. And we venture to predict that in a few years, after a little more experience, we shall hear no more of unprofitable sewage farms.

WAR NOTES.

THE enormous amount of literature which this war has evoked quite precludes the possibility of our compressing all the information of interest in the space at our disposal. We can only hope to chronicle, very briefly and imperfectly, a few of its more salient features. History is making itself so rapidly that events occur almost as quickly as they can be read; and it needs no prophet to foresee a reconstruction of the map of Europe.

We have wonderfully few details as to the state of health of the German armies. There have been rumours of diarrhœa, fever, and cholera, but these have not been substantiated. There can be no doubt, however, that a great deal of sickness must prevail. The French shut up in the garrison of Metz are suffering terribly from the effects of overcrowding, famine, and the foul atmosphere arising from the aggregation of wounded men.

With regard to the *physique* of the men, English surgeons and those who had abundant opportunities of comparing the German and French soldiers, agree in stating that the former are generally very superior to the latter in this respect. Under the Prussian system the mistake has been avoided of bringing immature youths into the field, who only break down in actual warfare, and serve to crowd the hospitals. The Prussian soldiers are, as a rule, tall and broad-chested; and this war has proved them to be self-reliant, dogged of purpose, and as stupidly insusceptible of discovering when they are getting the worst of the fighting as are the English; but we fear that, this being said, the comparison between the amount of intelligence of the two is all in favour of the Germans.

The first thing that strikes those reading accounts of the different battles is the utter inadequacy of any organisation to provide for the wants of the wounded, where the slaughter is effected so suddenly and on so appalling a scale. When weapons like the mitrailleuse can be protected by some cover, and used against a body of troops advancing in close column, the number of wounded is immense. The chassepôt has a long range, and as the French always commence firing as soon as the enemy comes in sight, the German losses in advancing on French positions have been awful. The preponderance of wounded officers has likewise been remarkable. The Queen Augusta Regiment of the Guard had lost exactly half their number, and more than that proportion of officers. The Rifles of the Guard had only one officer left.

Reports agree as to the admirable working of the corps of Krankenträgers, or bearers of the sick. These men display great coolness and judgment in picking up the wounded whenever the fire slackens; but there is very little chance of the sufferers being attended to whilst a battle rages, and battles have, on several occasions, lasted all day. Some recrimination has ensued regarding the statement of the French having fired upon an ambulance. The fact is, however, that, in a general action, it is well-nigh impossible to tell the front from the rear, and an ambulance vehicle will occasionally get into a line of fire.

The wounded appear to have suffered even more than usual from thirst: this was probably much aggravated by the intense heat to which they were exposed.

The utilisation of railroads for the removal of sick and wounded forms a novel feature in modern warfare, and it is one to which we adverted at the opening of the campaign as well deserving of careful study. We require to know whether, with the increased facilities for removal of the wounded, it has been found practicable and safe in military surgery to defer operations, and what has been the effect of movement in increasing or not the gravity of the wounds themselves. The extent to which railroads have been used for the transport of the wounded may be estimated from the fact that the Saarbrück journals report that already 20,000 wounded have passed along their railway. In the space of four days 10,000 wounded and prisoners passed Bingerbrück station down the Rhine valley. A full description of the railway carriages and their arrangements is to be found in Professor Longmore's report on Sick Transport. The river steamers have also been largely employed for the conveyance of wounded men.

The sick and wounded have begun to arrive at all the principal towns, and are fast coming in. At Munich, and some other Bavarian towns, nearly 3000 had already been located, and a large number were arriving. The letter of a correspondent at Mayence, in *The Times* of the 30th ult., is very full of details about the wounded, and will well repay perusal. From Remilly, near Metz, a visitor describes the houses as all being filled to the roof with the wounded. "Many hundreds still lay in the streets, the greater part wet through and without shelter." Not a room was to be had for love or money. A little later four hundred peasant waggons arrived filled with wounded, and it was necessary to leave them all night in their waggons, though they had been travelling for two whole days from the field of battle. A special train, with a number of surgeons, 50 members of the sanitary corps, taking with them 250 beds, 450 coverlets, 3500 soda-water flasks, 20 cases of soap, and a large supply of bandages, icebags, stearine lights, oilcloth, irrigators, opium powder, and surgical instruments, left Frankfort for Metz on the evening of the 23rd ult., being the third despatch to that town, while three have also been made to Woerth. The severely wounded are rebandaged at all the principal stations between Mainz and Berlin. During the night 2200 were sent on to Giessen and Marburg, and 30 waggons filled with Saxon wounded went forward the next morning. Through Mannheim, Darmstadt, and Würsburg trains of wounded passed to the interior; while, on the 22nd, 1600 severely wounded Prussians came from Gravelotte and Rezonville. The Rhine railways and steamboats are equally crowded. At Bingen, 600 wounded arrived by train at 10 o'clock in the evening; then 1000 three hours later; then, at 5 next morning, 1100 more—their destinations being Coblentz, Bonn, Cologne, Düsseldorf, and Hanover.

Medical aid is being contributed from all parts of Germany. Berlin is projecting a vast hospital, and 20,000 beds have been placed at the disposal of the hospital administration. Wissemburg has been selected for the ice-depôt;—what a relief it would have been to the wounded had the Krankenträgers been able to carry with them a supply of ice! Suabia contributes its stately Königsbau to accommodate the wounded; while the palace of the Queen Dowager has been converted into magazines, and 300 ladies of rank work at sewing machines to prepare clothing and nursing materials. Hundreds of women and girls from the families of the troops are labouring for the Sanitary Union in the Burgher Museum; and on the 19th surgeons, deaconesses, and sisters of mercy arrived at Metz with every requirement for 400 beds. It is generally admitted that the International Aid Societies have done good service; while Dr. P. Frank, now at Paris as one of the medical representatives of the Society, is in all respects well adapted by linguistic proficiency and military knowledge, for a post of the kind.

AT the last meeting of the Liverpool Workhouse Committee 1392 patients were reported to be under treatment in the hospital: of these 639 were fever cases, as compared with 523 last week, showing a further increase on the week of 116 cases of relapsing and typhus fever.

SIR JOHN GRAY'S RETURNS FROM THE LICENSING BODIES.

(*Concluded from p.* 311.)

The University of Dublin gives a licence in Medicine, and one in Surgery. The fee for each is £25. They are not in much demand. In 1869 only two licences in Medicine were given, and not one in Surgery.

King and Queen's College of Physicians in Ireland.—This College gave, in the years 1865 to 1869, the following licences: 66, 78, 69, 100, 96. In the same years it admitted to the Fellowship, 2, 3, 3, 5, 1. The fee for the licence is £15 15*s.* The licence in Midwifery was granted to 47, 54, 60, 76, and 82 persons in the same five years. The fee for this licence is £3 3*s.* This College does not require of its candidates evidence of having acted in the capacity of dresser, clinical clerk, or pupil in actual charge of patients. The College thinks such regulations impracticable, and that "hospital teaching must be left to the conduct and discretion of the medical and surgical officers of the several hospitals." The College is rather singular in not enforcing bedside examinations; but it is very singular in the rebuke which it administers to those ignorant persons who consider that mode of examination indispensable. The clause on this subject in the returns must be given entire. "5. *There is no regulation enforcing demonstration of disease at the bedside of a patient. Bedside examination of disease can only be carried out, and even then to a very limited extent, in the least important cases—viz., chronic and non-painful cases.* It is injurious to the patient, and therefore unwarrantable in the most important cases—viz., in acute medical and surgical diseases, painful affections, serious accidents, and midwifery cases. The College has many times considered the expediency of adopting this mode of examination, as such examinations are frequently advocated by persons ignorant of their nature and of the difficulties which surround them, but have not as yet been able to devise any plan to carry out such bedside examination, so as to make it a satisfactory test, or a substitute for searching *viva voce* examination."

The Royal College of Surgeons in Ireland gave its licence or letters testimonial in 1865 and the following four years to 89, 104, 77, 109, 99. The amount of the fee for the letters testimonial is £26 5*s.* In the same years there were admitted to the Fellowship 11, 16, 7, 4, and 3. The diploma in Midwifery was given to 9, 11, 7, 4, and 11. The fee for the Fellowship (if a licentiate) is £31 10*s.*; to a licentiate on the country list, £21; to non-licentiates, £42. For the diploma in Midwifery, £2 2*s.* Evidence is required of three years' hospital attendance, and four years' medical study. Candidates for the Fellowship must "have been engaged six years in the acquisition of professional knowledge." As to the dresserships, the College assumes the necessary evidence. "The Council considers that all candidates that present themselves for examination are registered as dressers in the hospital they attended, and to have had the care of cases under the directions of the surgeons on duty; and this rule has always been the practice in this College. *Candidates are not examined clinically*, but by a resolution passed by the Council on the 17th of February, 1870, "*candidates for the letters testimonial of this College will be examined at the bedside of the patient after January*, 1871."

The Apothecaries' Hall of Ireland in the years 1865 to 1869 inclusive gave its licence to 23, 35, 26, 25, and 20. The fee for the licence is the modest sum of 10*s.* Four years study, eighteen months' attendance on a medical hospital, and nine months' on a surgical one, are required. No special rule has been laid down as to the work to be done by the student in hospital. "*Demonstrations at the bedside* (kind not stated) *were adopted on the 20th March*, 1868, *and have been in operation since the 14th of October*, 1869."

Returns from the University of Durham, in this important document, are conspicuous by their absence.

THE Bank of Ireland have generously subscribed the sum of £250 to the International Society for Aid to the Sick and Wounded in War of both nations.

Correspondence.

"Audi alteram partem."

THE TRIAL FOR MURDER AT BARSHAM.

To the Editor of THE LANCET.

SIR,—Through the kindness of Mr. Image, of Bury St. Edmunds, I have had an opportunity of examining the parts of the woman, Anna Maria Chenery, for the wilful murder of whom (in an attempt to procure abortion), Jacob Ling was tried at Bury St. Edmunds on the 5th inst. You have already (LANCET, August 20th) given the details of the case and commented thereon. Everyone must agree with you that, in a case, not of opinion, but of fact, it is a lamentable condition of things that there should appear grounds for the proverbial professional difference of opinion made so much of, if not against the interests of justice, at least against the honour and dignity of the profession itself. This feeling is not diminished on inquiring into the real facts of the present case.

Mr. Crowfoot, who made the post-mortem examination, was so satisfied as to the nature and causes of the wounds, that, quite naturally, he did not think it necessary to call in the services of an expert. Understanding, however, that some doubts were likely to be expressed as to the validity of his diagnosis, he called in the aid of Mr. Image, of Bury St. Edmunds, whose experience and skill in medico-legal cases ought to render his opinion of the greatest value.

Mr. Image entirely agreed with Mr. Crowfoot as to the nature and causes of the wounds. Mr. Adams, of Bungay, however, who had also seen the parts, came to an entirely different conclusion. In the *Bury and Norwich Post*, August 9th, he is reported to have said: "I have had great experience, and have devoted great attention to anatomy. I did not see the dead body of the woman, but I saw the portions which have been preserved. I saw the wounds upon them. That on the right side was an irregular zigzag slit. Upon opening the wound I discovered a burst varix, leaving a sac or pouch large enough to put in a large horse-bean. A varicose vein most undoubtedly had existed there. I do not think that this sac could be caused by the stick produced . . . . I examined the wound on the left side, which was a superficial wound, merely a peeling off of the mucous membrane. In that spot the membrane is thinner than the thinnest tissue-paper. The wound might be caused by a finger nail."

The following is the result of my examination. A lacerated wound, an inch and a quarter in length, extended from the upper margin of the orifice of the vagina upwards and inwards along the vestibular margin of the right nympha. The edges, though irregular, could be more or less completely approximated. They were perfectly healthy, and showed no trace of anything resembling varicose ulceration or infiltration of tissues. The wound was deepest at its lower angle, where it measured nearly half an inch. On opening the lips of the wound, it was found that it had penetrated deeply into the bulbus vestibuli. The open mouths of several large vessels of the erectile plexus of the bulbus were distinctly visible in the interior of the wound. The upper end of the wound formed a short pouch or cul-de-sac, owing to the depth exceeding the superficial extent of the wound. A fine probe passed into the cul-de-sac was arrested in every direction. There was no trace of any enlarged vein in or near, or leading away from, the wound. On microscopical examination of the inner surface of the wound, I found it composed of the usual fibrous and elastic tissue of erectile structures. It did not in any degree resemble the inner surface of a distended vein.

The whole appearance of the wound favoured the supposition that it was caused by a forcible thrust from below upwards of some such instrument as a stick, which became arrested in the cul-de-sac above mentioned.

Internal to this large wound and immediately external to the orifice of the urethra was a small longitudinal wound running in the same direction as the large one. It was quite superficial, and did not measure more than a quarter of an inch.

Below the inferior extremity of the large wound there was extensive abrasion of the mucous membrane, immediately to the right of the orifice of the vagina.

Judging from the direction of the small flaps of mucous membrane which still remained, it would appear to have been caused by the forcible thrust of some instrument from below upwards and outwards.

About the middle of the inner surface of the left nympha a small triangular flap of mucous and submucous tissue was detached. The sides measured about a quarter of an inch in length. The apex of the flap was directed downwards and inwards. Its appearance coincided with the abrasion of the skin caused when the hand is knocked forcibly against the corner of a piece of furniture. It would correspond to a forcible thrust from below upwards and outwards with the corner of a stick. It was not like a nail-scratch.

From the above description of the wounds, apart from other circumstances in the case, it will be seen that the statement of Mr. Adams, that the cause of the woman's death was the spontaneous rupture of a varicose vein, cannot but be characterised as a hypothesis in the highest degree wild and extravagant.

I am, Sir, your obedient servant,

DAVID FERRIER, M.A., M.D.,

Lecturer on Physiology on the Middlesex Medical School.

August 27th, 1870.

THE CARBOLIC-ACID VAPORISER AS A DISINFECTANT.

To the Editor of THE LANCET.

SIR,—In the hospitals abroad, now so crowded with wounded soldiers, there must be great opportunities for testing the various antiseptic methods of surgery. Carbolic acid doubtless will be in great request, and will be largely consumed, and my object in writing these few lines is, if it be not an entirely superfluous matter, to put in a word for the carbolic-acid vaporiser, invented by Messrs. Savory and Moore, and described and figured some months ago in the medical journals.

I may remind the reader that in this vaporiser the carbolic acid drops from a cotton wick on to a plate, which is kept hot by a sponge spirit-lamp below. Each drop as it falls is entirely volatilised into the air, so that there is no waste of the acid.

The machine, in shape like a flour-dredge, is so portable that it can be easily carried, with its lamp burning, to any part of the ward where it may be desirous to place it, and its action may be stopped any minute by removing the lamp or withdrawing the cotton-wick from the tube down which drops the acid.

I have had opportunity of testing the powers of the instrument lately in a case of fetid abscess of the lung. When the patient coughed, the room was scarcely bearable from the fetor. The use of the carbolic-acid vaporiser, however, for a few minutes completely annihilated the smell, and its persistent use from time to time I believe did much to promote the recovery of the patient.

I am, Sir, your obedient servant,

JOHN C. THOROWGOOD, M.D. Lond.

Welbeck-street, W., Aug. 27th, 1870.

THE SICK AND WOUNDED.

To the Editor of THE LANCET.

SIR,—The cry for surgical help becomes daily more and more urgent, while the supply of experienced surgeons must of necessity be very limited. But the usefulness of the surgeon can be greatly enhanced by the aid of efficient hospital dressers. Dr. Mayo writes that it is useless to send out women; the work is too severe for them. Why not send out a staff of dressers from our hospitals?

On the 1st of October the medical schools of the United Kingdom will reopen, and hundreds of pupils will flock to the various hospitals. The third-year's men are, or ought to be, fully competent to act as first-class dressers, and even to relieve the surgeon of minor operations. And I feel sure that very many of these would volunteer, if their services in the field were allowed to count as hospital practice, so as not to interfere with the period for passing their examinations.

The feasibility of such a scheme must rest with those in authority at the colleges and hospitals. If it is thought desirable—and I first submit it to you for your approval or rejection—a short resolution sanctioning it would be necessary.

Money, of course, would be required, as most of these young men have to make their way in the world. But surely this would be forthcoming. The medical profession has not yet made any movement as a body, and I would suggest that a special fund should be raised, to be called the "Medical Dressers' Aid Fund." The profession counts its sick practitioners by the thousands. The value of *one fee*, be it great or small, would be sufficient to send a small battalion of dressers to each camp.

Should you consider the project of sufficient value to give it publicity, I shall be happy to offer my services to organise and to carry it out.

I am, Sir, your obedient servant,

W. H. M., M.D., F.G.S.

Ham Common, August 29th, 1870.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

"HELP for the Wounded" is just now, to the honour of our countrymen, the cry of almost every town and hamlet in the kingdom. The humane principles of the Geneva Convention are winning universal assent, and, to give them practical effect, money is going out to France and Germany in big lumps. The people of Birmingham have taken a foremost place amongst the knights of the Red Cross. Only the other day the Mayor summoned a meeting of influential inhabitants, and the subscription list started by them has touched £1200, and is steadily going up; while another local fund exceeds £1100. The latter deserves special mention. Soon after the war began, the Germans residing in Birmingham started a subscription amongst themselves to relieve the wounded, *friends* or *foes*, in the German hospitals. They lost no time in sending over money, but official reports accompanied the letters of thanks, conveying the impossibility of buying many of the things most needed on or near the scene of action. The unprecedented demand has exhausted the Continental supplies of surgical appliances and medical comforts. At this crisis the executive of the German Society sought Mr. Sampson Gamgee's advice, and under his direction a most useful assortment is being sent out; amongst other things, 100 bags, each containing 100 surgical bandages of various widths and material,—calico, flannel, lint, and Churton's stocking; 60 bags containing 10 perfectly cleansed fine sponges, for operations; 100 lb. of chloroform, in 20 cases, each containing 10 ½lb. bottles, packed in jewellers' cotton-wool; 50 lb. of tincture of perchloride of iron, similarly subdivided; 100 cases each containing 2 pairs of scissors, 2 artery forceps, 3 tourniquets, 36 suture needles, 2 reels each of metallic and silk suture; 10 cases, each containing 2 bullet extractors, 2 pairs of bone forceps, 2 probes, 2 spring and 2 bow forceps, and 4 scalpels; 8 amputating cases, and 8 trephine ditto; 500 bottles of Preston salts in 25 cases of 20 each; 2000 yards of the best adhesive plaster, in 20 wooden boxes, each containing 10 tin cases with ten yards each; 3200 water pillows; 110 oz. of quinine, in 11 boxes, each containing 10 one-ounce bottles; 30 small boxes, each containing a small minim measure, a hypodermic syringe, and a solution of morphia, much stronger than that usually employed, so that each syringeful will be equivalent to two centigrammes of muriate of morphia (about ½ gr.) The subdivision on the decimal system is intended to facilitate immediate distribution to a variety of centres where the wounded are congregated. The contents of every parcel are written on labels in English, German, and French; and inside every lid is pasted, in French and German, the following address: "The people of Birmingham; for the wounded of both armies, in sincere sympathy for their suffering.—F. Leonardt, Secretary, German Club, 12, Easy-row, Birmingham."

Birmingham, Aug. 1870.

Obituary.

MR. W. J. CLEMENT, M.P.

THE profession has lost one of its few representatives in Parliament in Mr. W. J. Clement, who died on the 29th ult. at Shrewsbury, the constituency for which he sat. The deceased gentleman was the son of a practitioner long established in Shrewsbury, where he was born in 1804. He was educated for his father's profession at Shrewsbury school and at the University of Edinburgh, and in 1844 became an Honorary Fellow of the Royal College of Surgeons of England. Mr. Clement settled as a practitioner in his native town, and in process of time obtained many civic honours. He was an alderman, and served as mayor of Shrewsbury sixteen years ago, and again in 1864. He contributed to the literature of the profession "Observations in Surgery and Pathology," and obtained the Fothergillian gold medal for "An Essay on the Anatomy, Physiology, and Pathology of the Urinary Organs." Before the Royal Medico-Chirurgical Society he read a paper on "Two cases of Intestinal Obstruction, in which the operation for artificial anus was successfully performed: one in the ascending colon (the first operation of the kind in Great Britain); the other in the descending colon." He was first elected member of Parliament for Shrewsbury in 1865, was again successful (being at the head of the poll) in the general election of December, 1868; and would doubtless have continued to represent the liberal voters of Shrewsbury for years to come, had not his health rather suddenly given way and death supervened. He was greatly respected as a practitioner, a magistrate, and a member of Parliament.

We have to record the melancholy death by suicide, on the 19th ult., at Boyle, of Damson Heather, Esq., Staff Assistant-surgeon. Dr. Heather had been invalided, and was suffering, we understand, from a bad form of remittent fever contracted whilst serving on the coast of Africa.

Medical News.

UNIVERSITY OF LONDON.—The following is the list of candidates who have recently passed the first M.B. (Honours) examination:—

ANATOMY.

FIRST CLASS.—Henry James Benham (Exhibition and Gold Medal), Univ. Coll.; Ebenezer Geer Russell (Gold Medal), Guy's.
SECOND CLASS.—William Smith Greenfield, Univ. Coll.; George Birt, Sydenham Coll., Birmingham.

PHYSIOLOGY, HISTOLOGY, AND COMPARATIVE ANATOMY.

FIRST CLASS.—Henry James Benham (Gold Medal), Univ. Coll.; Sidney Coupland, Univ. Coll., and Ebenezer Geer Russell, Guy's (equal).
SECOND CLASS.—William Smith Greenfield, Univ. Coll.

ORGANIC CHEMISTRY, AND MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

FIRST CLASS.—Charles Atkinson Nankivell (Exhibition and Gold Medal), Univ. Coll.; William Smith Greenfield, Univ. Coll., and Ebenezer Geer Russell, Guy's (equal); George Birt, Sydenham Coll., Birmingham.
SECOND CLASS.—Sidney Coupland and Henry Jas. Benham, Univ. Coll.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 25th:—

Harding, Alfred William, Percy-street.
Perkins, Whitfield, Malmesbury.
Phillips, Geo. Arthur, Whitwell, near Welwyn.
Rawlings, John Adams, Swansea.
Turner, Henry Crookford, Leeds.

The following gentlemen also on the same day passed their first professional examination:—

Boughton Addy, St. Thomas's; Francis Derrell Gayson and Frederick Thomas Marsey, Guy's; Enoch Morris, London Hosp.

(In the list published on August 20th of candidates who passed the preliminary examination at the College of Surgeons for the diploma of Member, the name A. H. Turning should have been A. H. Twining.)

THE library of the Obstetrical Society will be closed from Monday, September 5th, to Saturday, September 17th, both days inclusive.

WE are glad to learn that the subscriptions to the Partridge Testimonial Fund are expected to amount to £500.

OUT-DOOR RECREATION FOR LUNATICS.—A very interesting cricket match took place on Saturday last between eleven inmates respectively of the Aberdeen and Montrose Lunatic Asylums. The match was decided on the first innings; the Montrose players were victorious by five runs. Amusements of a similar kind we can recommend as satisfactory, inasmuch as they have the effect of improving not only the physical health of the insane, but also their mental condition.

Medical Appointments.

ARNOTT, H., F.R.C.S.E., has been elected an Assistant-Surgeon to the Middlesex Hospital, vice Hulke, elected Surgeon.
GREENHOW, E. H., M.D., has been elected a Physician to the Middlesex Hospital.
HULKE, J. W., F.R.C.S.E., has been elected a Surgeon to the Middlesex Hospital, vice C. H. Moore, F.R.C.S.E., deceased.
ISTANCE, R., M.R.C.S.E., has been appointed Medical Officer for the Risca District of the Newport Union, Monmouthshire.
JAMES, J., M.R.C.S.E., has been appointed Assistant Medical Officer to the North Wales Counties Lunatic Asylum, Denbigh, vice D. E. Morris, M.R.C.S.E., resigned.
KENT, E. J., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator for the Sellinge District of the Elham Union, Kent, vice F. W. Pittock, M.R.C.S.E., resigned.
MORRIS, J. A., M.R.C.S.E., has been appointed Medical Officer for the Caerleon District and the Schools, Newport Union, Monmouthshire.
RUGG, B. A., L.R.C.P.I., has been appointed Resident Surgeon at the Bournemouth General Dispensary, vice W. W. Humby, M.R.C.P.L., appointed to the National Sanatorium, Bournemouth.
SMITH, W., L.R.C.P.Ed., has been appointed Medical Officer in Ordinary to the St. Marylebone Provident Dispensary, Duke-street, Portland-place, vice W. Sedgwick, M.R.C.S.E., resigned.
SUMNER, Mr. J. J., has been appointed Dispenser to the Liverpool Ladies' Charity and Lying-in Hospital.
WOODMAN, J., F.R.C.S.E., has been appointed Surgeon to the London and South-Western Railway Company for Exeter, and Surgeon to the London and South-Western Railway Friendly Society for the Exeter District, vice B. J. Webb, M.R.C.S.E., deceased.
WYLLIE, R., L.R.C.P.Ed., has been appointed Medical Officer for the Scalby District of the Scarborough Union, vice C. Arthur, M.R.C.S.E., resigned.

Births, Marriages, and Deaths.

BIRTHS.

BLACK.—On the 26th ult., at Newcastle-on-Tyne, the wife of J. G. Black, M.R.C.S.E., of a son.
BLAGDEN.—On the 24th ult., at Minchinhampton, the wife of Robert Blagden, L.R.C.P.L., M.R.C.S.E., of a son.
BLENKINSOP.—On the 24th ult., at Bournemouth, the wife of W. H. Blenkinsop, L.K.Q.C.P.I., of a daughter.
BURY.—On the 25th ult., at Whetstone, Middlesex, the wife of H. C. Bury, M.R.C.S.E., of a son.
COATES.—On the 17th ult., at Malvern, the wife of F. W. Coates, M.D., of a son.
COATHUPE.—On the 18th ult., at Broughton, Manchester, the wife of E. W. Coathupe, M.R.C.S.E., of a daughter.
FLEMING.—On the 15th ult., at Holbrook, the wife of A. Fleming, M.D., of a son.
M'CARTHY.—On the 18th inst., at Mardyke, Cork, the wife of Edward M'Carthy, M.D., Army Medical Staff, of a daughter.
MACAULEY.—On the 20th ult., at Hatfield Broadoak, Harlow, Essex, the wife of Wm. R. Macauley, Esq., of a son.
MACKENZIE.—On the 2nd of June, at Wallangong, New South Wales, the wife of Walter Fawkes Mackenzie, M.D., late of West Maitland, of a daughter.
MALINS.—On the 27th ult., at Cradley, near Birmingham, the wife of Edward Malins, M.D., of a son.

MARRIAGES.

ADDENBROOKE—DOWNING.—On the 4th ult., at Kingswinford, Edward Hemfray Addenbrooke, M.R.C.S.E., to Marianne, daughter of the Rev. H. Downing, M.A.
COUSIN—SWINHOE.—On the 8th ult., at Malta, George Cousin, M.D., to Ann Jane, widow of T. B. Swinhoe, Esq., and daughter of the late Wm. Grant, Esq.
OWEN—BEATTY.—On the 18th ult., at Southport, Robert Brisco Owen, M.D., of Haulfre, to Annie, daughter of the late Robert Beatty, Esq.

DEATHS.

BRETT.—On the 19th ult., E. S. Brett, M.R.C.S.E., of Bridlington, Yorkshire, aged 66.
FINLAY.—At Campbeltown, Dr. James Finlay, Medical Officer of the Parish of Saddell.
GORMAN.—On the 30th ult., Dr. John Gorman, of Jeffrey-road, Clapham-road, formerly of Cadiz, aged 79.
HAWKINS.—On the 14th of Dec., 1869, at Sydney, New South Wales, Dr. A. W. T. Hawkins, aged 22.
JOHNSON.—On the 24th ult. (at the house of his mother-in-law, Mrs. Thomas Walker, of Birchfield, near Birmingham), David Johnson, Esq., Surgeon, late of Newhall-street, Birmingham, aged 41.
ORRIDGE.—On the 18th of July, Mr. B. Brogden Orridge, of Ironmonger-lane, E.C.
WILSON.—On the 31st of May, at Wangaratta, Victoria, Australia, Dr. John Wilson, aged 29.

Medical Diary of the Week.

Monday, Sept. 5.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Wednesday, Sept. 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Sept. 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Sept. 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 10.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

THE STUDENTS' NUMBER OF THE LANCET will be published on Saturday next, September 10th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that Number, are earnestly requested to send it *without the delay of a single post.*

SEASIDE LODGINGS AND INFECTIOUS DISEASES.

THERE is a very salutary section in the Sanitary Act of 1866 which we commend to the notice at the present time of all visitors to those seaside places to which convalescents are likely to repair or have recently repaired. This section provides that anyone who shall knowingly let any part of a house in which a person suffering from a dangerous infectious disorder has been to any other person without having it, or articles in it liable to retain infection, disinfected to the satisfaction of a medical man, as tested by his certificate, shall be liable to a fine of not less than £20. We know that scarlet fever, for instance, is spread from family to family by the wilful neglect of this precaution, and the carelessness of the public also in reference to the occupancy of fouled lodgings. If the public, before deciding upon lodgings they propose to secure, would only take the trouble to ask the simple question whether there had been in the house anyone suffering from any infectious disease, they would save themselves from many sad occurrences which are entirely preventable.

Ajax "prays for light" on the following difficulty:—He is M.B. of Glasgow; he will be M.D. of the same University next April; and meanwhile he wants to know whether he can do as a neighbouring L.R.C.P. Edin. does, and style himself "Dr." Certainly not. Until he obtains the *summa in medicinâ honores*, which only a University can give, and which we congratulate him on being so soon to win, he is simply Mr. Ajax, Physician.

Dr. Pierce (Denbigh) may apply to the French or Prussian Embassy. We are unable to give our correspondent any information beyond that already published. The Prussian authorities have determined not to employ any surgeon who does not speak German fluently.

Traveller.—"The Ulster" can be obtained of J. G. M'Ghee and Co., Belfast.

THE LATE TRIAL FOR MURDER AT BARSHAM.

Mr. Alfred Kent, (Norwich.)—We have received a letter from this gentleman, the attorney for Jacob Ling, in which he complains of our remarks on the "Barsham murder case," and accuses us of having, on the *ex-parte* statement of the medical witness for the prosecution, made remarks to the prejudice of the accused. We think that Mr. Kent will find, on another perusal of the article, that he has hastily formed an erroneous impression. We had before us a very full newspaper report of the trial, and we were also supplied with the anatomical details of the evidence for the prosecution, which were given to the jury, but were suppressed in the report. We so far alluded to the prisoner as to mention his immoral relations with the deceased, and his admitted desertion of her when fainting upon the ground; and we expressed a not unnatural regret that the result of an acquittal should have been to enable him entirely to escape punishment for the offences against morality and against humanity, which he is sworn to have confessed. We then dismissed him altogether from consideration, pointed out that the existence of an injury was no proof that he had inflicted it, and proceeded to discuss the medical evidence, and to show how it might have been rendered more complete. The question before us was not whether Jacob Ling was innocent or guilty, but whether a certain solution of continuity was caused by the bursting of a varix or by external violence. On this point the evidence of Mr. Crowfoot seemed to us to leave little room for doubt, and that of Mr. Adams to rest on an insufficient foundation—namely, the mere inspection of parts that had been preserved in spirit, and that Mr. Crowfoot had removed and examined very shortly after death. We should surmise that the verdict of the jury was based on the absence of proof to connect Jacob Ling with the injury, and not upon any doubt with regard to its nature. At any rate our comments had no reference to him, and we do not see how they could operate to his prejudice. Since the above remarks were written, we have received an important communication on the subject from *Dr. David Ferrier*, which will be found on page 359.

Non-Medicus.—Probably it could be procured of Mr. Baillière or of Trübner and Co.

EPSOM COLLEGE.

To the Editor of THE LANCET.

SIR,—The time is fast approaching for the re-opening of this school, and as I have taken special interest in its welfare, and knowing what its shortcomings are, I would venture to suggest to the Council the great necessity of having a class formed for the matriculation examination at the London University; and, if the new head master finds that he has boys of ordinary intellect, that he will take an interest in pushing them forward, and in future we may be enabled to see Epsomians figure in the Honours class, and vie with those sent up by private schools, such as Mr. West's (Amersham), Mr. Abbott's (Tottenham), and Mr. Rush's College (Northampton). I have known several medical men who have removed their sons from Epsom, being dissatisfied with the system of education pursued there, and most of these boys did well at private schools, and have done much better since their removal from there at King's College or the University College School. I think it of paramount importance that those boys who are destined to follow the profession of their fathers should have a technical education; and as it is well known what books candidates for the Arts examinations are examined in, the Epsom boys ought to be well prepared for such, and not to go up badly prepared, as hitherto, and get plucked at the Arts examination of Hall and College. It appears that Epsomians are not taught English, whereas our examining bodies test their candidates severely on this subject.

Yours truly,
A WELL-WISHER FOR THE FUTURE OF EPSOM BOYS.

August 29th, 1870.

Y.—We sympathise with our correspondent in the hardship of having to wrestle with a competitor who is not particular as to the means he uses to ensure success. But we strongly advise him not to follow a bad example, or allow himself to be drawn into non-professional courses. By taking our advice he may be a little longer in reaching the goal, though even that is doubtful. But he will retain the respect of his professional brethren, and, what is of still more importance, he will retain his self-respect, which he would not do if he suffered himself to imitate the tactics he describes to us. It can never be right to call on the patients of other medical men.

Mr. G. Balliagall Stuart.—No assistant-surgeons are required for the British medical service, and therefore no competitive examination will take place. A revised edition of the Army Medical Regulations is said to be in hand, but it has not yet been published.

STIMULATING TREATMENT OF BURNS.

To the Editor of THE LANCET.

SIR,—May I be permitted to trespass on your space in order to confirm the commendation bestowed by Mr. Skey on stimulating treatment of burns. My father, the late Mr. John Bogg, was in the habit of treating burns with a first dressing of unguentum resinæ, with results which, I believe, have not been surpassed. Resin ointment is less severe than oil of turpentine, and requires less frequent renewal than nitrate of silver lotion. It produces no pain, and excludes the air better than either of the two preceding applications. One dressing is sufficient for slight cases; but in others it should be removed after the expiration of two days, and the wound examined, to avoid over-stimulation, and this should be done whether the sore feels comfortable or not. When the new skin begins to form, or granulations to be developed, astringents, such as calamine and zinc ointment, answer better. Sulphur and pitch ointments combined are also very efficacious as a primary application to scalds or burns; and might not some such application be tried with advantage for the blisters of pemphigus and chicken-pox?

Your obedient servant,
THOS. WENTIS BOGG.

Louth, August 30th, 1870.

THE MECHANISM OF HYPODERMIC INJECTIONS.

Too little attention is generally given to the exact *modus operandi* of very simple minor surgical operations that are included in the every-day work of general practitioners. Hypodermic injections of various kinds are now so frequently used, and the operation appears so superlatively easy, that we are somewhat apt to forget how much the comfort of the patient may depend upon the maker of the instrument used, and upon the manipulation of him who uses it. Whatever form of syringe be employed, good needles and suckers are the first desiderata. Gold and steel needles are used; but we have little hesitation in recording that those made of the latter metal are the best, if very fine and delicately pointed. Only those who have been the subjects of operation with needles of various kinds can properly appreciate the skill of the accomplished workman in this matter. Too much care cannot be employed in the making and fitting of suckers. Strongly acid injections are frequently used, the action of which no suckers will long withstand; and as it is necessary that these suckers should be renewed at frequent intervals, it is also equally necessary that the workmanship should be perfect, so as to ensure perfect accuracy as to quantity of injection. The working of the instrument is specially worthy of attention. A faultlessly clean syringe, a very fine and sharp needle, well oiled, are necessary items. The point of the needle should be introduced with the opening downwards, and the piston, whether plain or screw, should be depressed gently and at regular intervals; for the quick and forcible introduction of any fluid under the skin is always irritating, and often very painful indeed. The needle should be withdrawn gently, and without any rotatory movement, and the wound of the skin closed with the finger for a minute or two after the operation. We record these apparently simple directions for two reasons—1st, because there is an apparent carelessness among many medical men as to these minor but very important operations; 2ndly, because too little care is expended in the construction and repair of these useful instruments.

Mr. T. Harrison is informed that the new edition of Druitt's Surgeon's Vade-Mecum will certainly appear this month.

A NEW ANTISEPTIC.

To the Editor of THE LANCET.

SIR,—The hydrated chloride of aluminium, which I have made the subject of numerous experiments for some months past, has been entirely overlooked in medicine. In the kind notice of my labours in your last issue, you account for this by the fact that only the anhydrous chloride has been prepared in the process of procuring the metal aluminium. That, in common with other aluminous salts, it had the power of arresting decomposition might not be altogether unknown; and what I claim as the result of my researches is, the recognition of its extraordinary value as a general antiseptic—indeed as a substitute for the very poisonous solutions of chloride of zinc; the caustic carbolic acid, which from its smell cannot serve for many purposes; chloride of lime, which evolves the most unpleasant fumes when used in water-closets or elsewhere; the permanganates, which stain; and sulphurous acid, which cannot be conveniently used in hospitals or in the sick chamber.

Two obstacles have presented themselves to its prompt introduction into general use. The first is the source of supply, and the second the name.

Since the chloride of aluminium has never been a commercial article, and it was important to secure large quantities at a moderate price, half a ton was first made by the chloride of calcium and sulphate of alumina process to which you refer. One error committed was attempting to dry it thoroughly. This is an expensive process, and it is far better to make a strong solution of 1240 specific gravity, out of which very fine crystals of pure chloride can be obtained for medical purposes. Supplies can now be ensured at a cost not exceeding that of the poisonous chloride of zinc, and below that of carbolic acid—indeed so far below carbolic acid that it must supersede this where disinfectants are used in abundance, to water streets, closes, alleys, &c., which are now often redolent of the tar acid odour that by no means finds favour in every household.

Secondly, as to the name. An antiseptic and disinfectant of such a character as this non-poisonous chloride cannot be too commonly or too widely used. That a long scientific name is an objection in a commercial point of view, and attended with great inconveniences, everyone will admit. Carbolic acid is usually termed "carbonic" acid by the people, and every chemist is called upon daily to check popular blunders in naming articles asked for across the counter. I recently heard a respectable youth ask a dispensing clerk for "evoroscing," and I was astonished to see a bottle of effervescing citrate of magnesia opened to supply the demand. I have consulted several medical friends and chemists as to the best popular name for the hydrated chloride of aluminium, and after many fruitless efforts have determined on calling it "chloralum." I am aware of the objections to be raised to this; but since I searched for a single word whereby to designate it, one that would in some sense indicate the nature of the compound, and at the same time be quite new, I have resolved to adhere to a name which, like *telegram*, may become popular in spite of classical objectors.

All this matter of business may seem irrelevant; but only those who have happened to introduce some novelty are aware of the insurmountable barriers which present themselves in commerce.

And now, Sir, referring to the more pleasant part of my revelations—the results of experiments,—it is not unimportant to state that in January last I had to pay from 12*s.* to 24*s.* per pound for small quantities of the chloride to be found in the shops of manufacturing chemists in London. I did hear that the Messrs. Bell, of Newcastle, had supplied the anhydrous chloride to be mixed with size by Manchester cloth-dressers; but on application to this firm, I was told they had discontinued the manufacture of the metal, and therefore had none of the chloride. With the small quantities I could find, amounting in the whole to less than a couple of pounds, I made solutions of much greater strength than I have since found requisite, and immersed raw hide, meat, the feet of cattle cut off at the knee, rough fat, and other agents, for periods varying from a few minutes to twenty-four hours. The result was absolute preservation, and, what is more astonishing, after keeping these specimens up to the present time, I find no insects attacking them, as in the case of other means of preservation, even with arseniates.

Meat dipped in solutions of 1030 to 1040 specific gravity had a strong astringent flavour; but a retriever dog did not object to make a daily meal off flesh thus preserved, and thrived well on it. I knew from previous work that this chloride was non-poisonous; but I repeated my experiments to satisfy myself on the point, and then commenced preserving fish. I tried large quantities of plaice, soles, cod, whiting, mackerel, haddocks, mullet, and other kinds. Some were bought when far from fresh, and a dip purified them, and arrested them from decomposition. A flabby cod of suspicious appearance became firm, and was good eating after a day's immersion. We had the least success with the mackerel and mullet, and, as a rule, none with the fish that had not been cleansed.

Mr. Frank Buckland aided me in procuring salmon from Thurso, Aberdeen, and Galway, dipped in the solution when caught, and sent up to London without ice. All the fish arrived in good order, and kept several days. A sea trout was dipped in the solution in Aberdeen, exposed to 80° for thirty hours, and then sent up in a box. Mr. Buckland and Mr. Brudenell Carter tasted the fish, and coincided in the judgment formed of it in my household. The trout was firm and of excellent flavour, and in both respects contrasted favourably with salmon that had been transported in ice. The result of these experiments was that the fish would bear immersion for five or six days. The scales softened, and the flavour was somewhat affected by longer immersions. Slices of fish were apt to discolour and lose their flavour in much shorter time than whole fish; but a salmon split in two would dry slowly, and prove good eating many days after being caught. As an aid in the drying of cod on the Newfoundland coast and elsewhere, a mild solution of the chloride would be invaluable, since thousands of tons of fish have to be thrown away when caught in abundance because they cannot be dried fast enough.

The chloride of aluminium is a deliquescent salt; but it has a tendency to part with its chlorine, and thus no obstacle is offered to the drying of the fish.

These experiments show how safe an agent chloralum is, and every medical man can appreciate the importance of having an inoffensive agent to be used in the sinks, dust-holes, and accumulations of filth and garbage in and around kitchens. A raid on the dust-holes and dust-pens is probably next in importance to the disposal and disinfection of sewage, and physicians have never had an antiseptic at their disposal which could safely be used in the dirtiest corners of most dwellings.

For ordinary disinfecting purposes, solutions varying from 1006 to 1015 specific gravity are quite strong enough. Stronger solutions are usually unnecessary, and impart flavour to edible substances.

Anyone who wishes to try a convincing experiment as to the value of chloralum should drop some in stray sewage-water. The solid matter is precipitated more rapidly than by the use of a persalt of iron, and the odour disappears. I am quite satisfied that it will aid those who are attempting to deal with the sewage of towns by combined mechanical and chemical means when irrigation is impracticable. It has one great virtue, which Dr. Budd, in a letter to myself, says must belong to "the antiseptic of the future"—viz., that it is quite harmless to vegetation. The chlorine combines with ammonia and other bases, and alumina is deposited with the solid organic elements.

In the dead-house, the dissecting-room, and museum laboratory, chloralum will be found invaluable.

It is most important to increase the number of agents available for sanitary purposes. The destruction of animal poisons, so much neglected a few years since, marks an epoch in medical history, which is in pleasant contrast to the days of long prescriptions and infallible cures. Cattle plague times fortunately brought into fashion the stamping-out of malignant contagia, and for this purpose a good antiseptic, which cannot do harm, offend the most delicate nose, nor soil the linen, is a great desideratum.

In conclusion, Sir, I wish to direct the surgeon's attention to the use of the hydrated chloride of aluminium in the treatment of wounds, erysipelas, gangrene, and various contagious inflammatory diseases of the superficial parts, such as the contagious ophthalmia of children, soldiers, &c. In fever wards and every sick chamber, gargles and lotions containing it will frequently be found of use, and linen can be dipped in solutions of it before removal from the sick chamber. It is a powerful styptic, and in the treatment of acute and chronic discharges, haemorrhage, &c., is of great value. It is sufficient, Sir, to have drawn attention to this subject to ensure the multiplication of experiments; and the more the new compound is tried, the better will it be appreciated.

I am, Sir, your obedient servant,

JOHN GAMGEE.

Great Winchester-street-buildings, London, August 29th, 1870.

The Writer of the Paragraph in the Kelso Chronicle, lauding in very fulsome terms a surgical operation in that neighbourhood, writes us a letter, which in no degree alters our opinion of the paragraph in question. We are glad to learn that the medical men concerned had no knowledge of the paragraph. It would have been still more satisfactory had they expressed their entire disapproval of it.

T. E., (7th Bengal Cavalry.)—If our correspondent will refer to THE LANCET of 16th July last, he will find that the subject has been already noticed under the head, "One Monkey's Meat, another Monkey's Poison."

WESTON-UPON-TRENT: FRIENDLY SOCIETIES.

To the Editor of THE LANCET.

SIR,—Seeing that the advertisement for a surgeon to a Friendly Society at Weston-upon-Trent again appears in your columns—that being the Society to which I referred in my first letter to you,—I shall be obliged if you will allow me to say, for the information of those who are not acquainted with the district, that the statement therein is not strictly correct. Weston-upon-Trent is barely three miles from my house at Great Haywood, whilst it is but little over two miles from my brother's residence at Sandon; and of the ten villages mentioned as being without a resident surgeon, three are nearer to Haywood than to Weston, four are nearer to Sandon, the rest are about equi-distant, and are small hamlets, containing a few groups of cottages, and a few scattered farm-houses, in which reside the persons we object to attend as club patients.

With the "several other Societies existing in the neighbourhood" we have no dispute, as they do not now admit large farmers, and have raised their payments to the amount we asked for.

Your obedient servant,

Great Haywood, Stafford, Aug. 29th, 1870. E. T. TYLECOTE, M.D.

ANTI-VACCINATION IN WILTS.

SWINDON was the scene of an anti-vaccination meeting on Saturday, the 20th ult., when a gentleman, who holds that the earth is flat, moved the first of a series of resolutions against the enforcement of Jenner's great sanitary precaution. An itinerant agitator in the anti-vaccination interest delivered what reporters call "the speech of the evening"; but his harangue being either mere assertion or mere mistake, we decline to notice it. Another speaker warned the meeting against some designing people, who recommended them to "impregnate the blood of their children with the greasy heel of a horse"—a warning which we cannot help thinking will be thrown away upon the persons it was meant to benefit. A licentiate of the Edinburgh College of Physicians followed, and protested against the people of England, who were already burdened with taxes, keeping a "lot of vagabonds" at the cost of £300,000 a year. This, in substance, was all that was said at the meeting, and, as a specimen of the mode of warfare practised by the anti-vaccinationists, cannot but be welcome to all who like to see the opponents of a good cause stultifying themselves. As a pendant to the remarks of the *Wilts and Gloucester Standard* on the meeting, we simply quote the latest accessible instance of what has been called the "Nemesis of non-vaccination": At Brooklyn, U.S., 56 cases of small-pox occurred in the German quarter; 5 of them died, and not one of these had been vaccinated.

Mr. Samuel Copland.—There is nothing new in the notion that the sarracenia is a remedy for small-pox, and, we fear, nothing true.

THE CASE OF STRANGULATED INGUINAL HERNIA AT THE HUDDERSFIELD INFIRMARY.

To the Editor of THE LANCET.

SIR,—I was somewhat surprised, after reading the notes of the above case reported in your last impression, to find in the accompanying remarks the following remarkable passages relative to the fæcal vomiting which occurred after operation and reduction of the hernia:—"From the examination after death it is clear that paralysis of the protruded bowel, no doubt the result of too much taxis, was the first cause of vomiting and of the reversed peristaltic action of the intestine. But during life it was not equally clear, and the case is brought forward to show how difficult it is to distinguish between reversed peristaltic action as the result of paralysis of intestine, and that dependent on more direct mechanical occlusion of the bowel." So that here we actually have a provincial hospital surgeon producing a case in order to illustrate the difficulty of diagnosing the precise cause, in any given case of intestinal obstruction, of "reversed peristaltic action" of the bowel. Surely pathology must be at a very low ebb at the Huddersfield Infirmary when one of its surgeons gives "reversed peristaltic action" as in any way being a cause of fæcal vomiting! I certainly thought that pathologists of the present day altogether ignored any such morbid process as "reversed peristaltic action" of the intestines in such cases. Allow me to call the attention of the gentleman who favoured the profession with this specimen of his pathological knowledge to the late Dr. Brinton's work on Intestinal Obstruction—a work of which he must be in most unhappy ignorance. Amongst a number of arguments which Dr. Brinton produces to disprove the existence in any case of anti-peristalsis, he says at page 9: "The necropsy of cases of obstruction positively refutes the notion of an anti-peristalsis. No matter how many days fæcal vomiting may have lasted before death—that is, no matter how long the anti-peristalsis alleged to cause this vomiting must also have preceded that event,—an inspection of the obstructed bowel always affords irrefragable evidence that the general direction of the intestinal movement and the general course of the intestinal contents have been onwards to the obstructed point, and not backwards from it." And again, at page 10: "While the supposed anti-peristalsis might fairly be expected to extend, like the irritation causing it, beyond the occluded point, both observation and experiment show that, long after the occurrence of obstruction, the bowel at and below the occluded point often empties itself by propelling its contents in the normal direction. So that, on the theory of an anti-peristalsis, a single irritation applied to a given part of the bowel renders it the starting-point of two precisely opposite movements—one upwards towards the stomach, one downwards towards the rectum."

Now, Sir, I presume that the junior members of the profession, who look in some measure for teaching on important pathological questions to such men as hospital surgeons and physicians, have a right to expect that these gentlemen shall, when they report cases and append explanatory remarks to them, at least give them correct accounts of the processes of disease in so far as those processes are known. I suppose you, Sir, will allow that that old theory which used to account for fæcal vomiting by such an unreasonable process as "reversed peristaltic action" is obsolete and quite unworthy of belief, and also that Dr. Brinton's exposition of this subject has received the entire assent of the scientific portion of the profession. I trust I shall not be out of place if, in addition to calling attention to what does appear to be an exhibition of ignorance on the part of one who ought to be a teacher of sound pathological doctrines, I ask for an editorial expression of opinion on this subject, conceiving that a point of such vital importance as the existence or non-existence of anti-peristalsis in intestinal obstruction cannot but profitably occupy the attention of pathologists.

I am, Sir, your obedient servant,
Norwood, August 29th, 1870. J. TOMPSETT, M.R.C.S.

*** We agree with the writer in thinking that the old theory which used to account for fæcal vomiting by a process of reversed peristaltic action is obsolete, and that Dr. Brinton's explanation has received the assent of the scientific portion of the profession. We are not responsible for the remarks appended to the case referred to, which were included in the notes forwarded to us by the house-surgeon.—ED. L.

Castillano.—Dr. Beigel's book "On Inhalation," and his paper on the same subject in the *Practitioner* for August, 1868. If our correspondent reads German, he may also consult the elaborate work of Waldenburg, "Die Tuberculose, die Lungenschwindsucht, und die Scrofulose." Berlin, 1869.

THE DRAINAGE OF LINCOLN.

THE Local Board of this city appear to have an odd notion of the functions proper for them to discharge. A memorial having been addressed to the Home Secretary by inhabitants of Lincoln, praying for an inquiry into the condition of the river Witham and the drainage of the city, the Local Board have been called upon to state whether the sewage is emptied into the river, and, if so, whether the Board have any scheme for providing another outfall. The meeting at which the Home Office questions were discussed resulted in the adoption of a resolution to inform Mr. Bruce that the city is in a perfectly healthy state; but as to the sewage outfall no information was vouchsafed. Whether the river was inoffensive to the nose, or whether it "stunk abominably," was the moot point at this meeting, and there was the usual blending of aldermanic jocosity and local virulence in the speeches delivered. The conclusions of the Local Board are little likely to satisfy the Home Secretary, whose inspector will, no doubt, soon be heard of at Lincoln.

Mr. John Broom.—Our correspondent will see that we anticipated his suggestion. The point is one of great importance, and shall not be lost sight of.

FREILIGRATH'S "RED-CROSS KNIGHT."

THE greatest of living German poets has addressed to his son, a medical student who has gone from London to serve as a surgeon in the ranks of the Fatherland, a beautiful lyric, of which the burden is the holiness of the healing art as exercised amid the horrors of war. Herr Freiligrath has two other sons engaged in the combatant lines—a coincidence alluded to in the following verses. We quote from the translation given in Monday's *Standard*:—

"Well wouldst thou in the contest
Strike home for Fatherland;
The Frenchman's ranks thou frontest—
Yet not with sword in hand.
Upon the field thou servest,
Yet not in deadly strife;
Thy hero-hand thou nervest
To save, not sever, life!"

There is a good deal of what the critics call "colour" in the following picturesque stanzas, which will serve to bring before the eyes of civilian practitioners the scenes among which their brethren are now moving night and day:—

"Thy heart so warmly glowing
Impelled thee to the Rhine:
Thy arm the red-cross showing
Within the German line.
Thou step'st among the stricken
Upon the field of gore,
The dying life to quicken,
The wounded to restore.

"The fevered brow thou soothest
With drops of healing balm,
The wayside pillow smoothest
When comes the deadly qualm.
The dying prayer thou hearest
Upon the night-wind swoon,
In dying faces peerest
Beneath the autumn moon."

The final injunction of the father to the son is simple, impressive, and characteristically German:—

"Then still through dead and dying
Thy faithful course pursue,
And keep the red-cross flying
Within each warrior's view.
Ne'er from thy pathway swerving,
Friends, foes, alike to shield—
Thy curse for him reserving
Who forced us to the field.

"Farewell, my boy! God's favour
Attend thee to the close,
Nor let thy love-task waver—
My blessing with thee goes.
And if we e'er behold thee
In Deutschland's conquering van,
In fond embrace we'll fold thee,
A boy no more—a man!"

After the profusion of lyrics which have been dedicated to the calling of the combatant, we are glad to give prominence to the delicate little chaplet of poetry with which Ferdinand Freiligrath wreathes the brow of the medical officer, whose service is hardly less dangerous, and equally honourable.

Mr. D. Gray, (Littleborough.)—As assistant to a public vaccinator, he has no claim at all to an award, inasmuch as the awards are made only to public vaccinators. The requirements necessary to be fulfilled are a faithful performance of the contract duties, and the strict observance of the regulations of the Privy Council and of the Act of Parliament. If this is done, and if a public vaccinator's work is of undoubted quality, and the vaccination of his district as complete as local circumstances will allow, we take it that he will be entitled to receive an award from the grant voted by Parliament.

A Five Years' Subscriber.—A M.R.C.S.E. can recover debts in a County Court in surgical cases.

Mr. Wm. Overton.—We cannot break our invariable rule of not prescribing in these columns; and can only advise our correspondent to be guided by his medical attendant.

OAKUM AS A SURGICAL DRESSING.

Mr. Westhorp writes to say (in supplement to our article on this subject) that marine lint is not made from old ropes; that the "hand-picked" oakum made at prisons and workhouses is picked from old ropes used on board ship, at wharves and warehouses, on brewers' drays and in mines, and contains much dirt and many impurities; and, finally, that the marine lint is made from a variety of fibre (generally vegetable), is prepared by a peculiar process, and will retain its disinfectant qualities and "tarry fragrance" for years.

A Guy's Man.—We would gladly insert our correspondent's letter, but we think it would do harm at the present moment. Undoubtedly the Council might and should do more than it does in the way of prosecuting illegal practitioners, though it exists primarily to elevate the profession rather than to exterminate quacks.

Stella.—The advertisement is most unprofessional.

A SERIOUS CASE OF POISONING FROM ARSENITE OF COPPER ON WALL-PAPER.

To the Editor of THE LANCET.

SIR,—The following case offers a striking illustration of one of the dangers from the practice of using arsenite of copper in decorating paper-hangings.

About 3 A.M. of the 10th instant I was called up from bed to visit Mr. D. W——, aged forty-eight, a retired master mariner, residing at St. David's, who, I was told, was suffering from a severe attack of English cholera. On reaching his bed-room I found him in a state of great prostration, with a strangely anxious countenance, and very restless; his skin cold and clammy; pulse very feeble and frequent; eyes deeply sunken, and surrounded with a well-marked dark border; lips and tongue parched, and accompanied with great thirst; and the breathing slow and much oppressed, and sometimes sighing. Complained of burning pain in the stomach, increased on pressure, and an inclination to vomit. Extremities icy cold, though every endeavour has been made to keep them hot by means of jars with hot water, &c. Has had severe vomiting, and griping pain in the bowels, accompanied with purging; also cramps, first in chest and arms, and afterwards in the calves of the legs. In a few minutes after I entered the room most violent cramps came on in both calves, causing intense suffering, and rendering the muscles hard and knotted. The attacks of cramps came on almost every quarter of an hour, and lasted a few minutes each time. The slightest movement, such as turning in bed, seemed at once to excite the spasm. Violent vomiting of a greenish-yellow fluid also occurred at intervals. Brandy and all warm drinks were almost immediately rejected, but a little cold water could be retained. Mustard plasters were now applied to the spine, chest, and calves of the legs; but for some time the patient seemed scarcely to feel them, and the hot jars were also reapplied frequently. By 5 A.M. the skin had regained some amount of warmth, and the patient seemed easier; but the cramp still came on at intervals, and the vomiting, though not ceased, was less frequent. Bowels not been acted upon since 3 A.M. At 8 A.M., cramps less severe; has retained a little arrowroot and milk, and there is not so much burning pain in the stomach; the countenance somewhat less anxious, but still very restless; the pulse small and hurried, 110 in the minute; breathing less oppressed. At 2 P.M., cramp almost gone, and vomiting has ceased; is rather feverish and thirsty, and complains of griping pain in the bowels. Ordered to take castor oil.

From this time he gradually cast off all symptoms; but complete suppression of urine lasted for over twenty-four hours, and great weakness was experienced for several days.

The symptoms throughout might have indicated a severe attack of epidemic cholera; but as I had never witnessed a case of cholera of such severity in this neighbourhood, and as it is not epidemic at the present time, I at once felt confident that there must have been some other cause to produce such severe symptoms along with such great prostration, and I therefore, with the view of finding out the cause if possible, immediately made inquiry as to what he had taken the day before, and how occupied. I was not long in tracing what I truly believe to be the cause, and which is explained in the following statement. The whole of the morning up to between one and two o'clock at noon of the 9th, being then in excellent health, he was engaged in removing the paper from the walls of a room, previous to having it repapered. He had moistened the surface in the usual way, and had but little difficulty in tearing down the paper last put on, which was of a purplish colour. Underneath this, however, was another paper of a *green colour*, which had been placed on the walls about fifteen years ago, and had been left there untouched when the last paper was put on. He was now anxious to remove this also; but as the moisture had affected it but little, it was done with more difficulty; indeed almost the whole of it had to be scraped off with the knife. This occupied much time, and also caused a good deal of dust to rise from the paper, so much so, as he says, that he had frequently to close his eyes in consequence. He in this way must have, of course, inhaled much of the arsenite of copper, which occurs thickly on the paper, and which is very easily rubbed off. The symptoms also indicated inhalation of the poison rather than its being taken otherwise. During the afternoon of the same day he complained of dryness of the throat and mouth, and also of thirst, afterwards also of fulness of the stomach, with tenderness, and nausea. Early in the evening he took some of Holloway's pills, and about 11 P.M. the bowels turned loose, accompanied with severe griping pain. About 1 A.M., when on the stool (the bowels having now acted several times), he suddenly felt great difficulty of breathing, along with cramp in the chest, and also in the arms and hands. Immediately afterwards the cramp attacked the calves of both legs, and he became very cold all over and stiff, so that he became completely helpless, and had to be entirely lifted into the bed by the attendants. Violent vomiting now very soon set in, and the cramp became more severe in the calves, though it did not again affect the chest and arms. The breathing, however, continued to be much oppressed, and lasted so up to the time he was first seen by me, about 3 A.M.

Perhaps it may be interesting to note that the patient was up to this attack a strong healthy man, that he had never before suffered from any symptoms of cholera, though he has been abroad a good deal of his time, neither does he recollect to have suffered at all from cramp in any part of his body before.

Your obedient servant,

St. David's, August 16th, 1870. H. HICKS.

P.S.—I enclose a portion of the paper.

ARMY MEDICAL SERVICE.

Expectans.—The proposed scheme was, we are told, forwarded for the consideration of the War Office authorities many months ago; but they seem to have done nothing in the matter. One would think, says our correspondent, that the effects of the measure must have been fully canvassed before medical officers were omitted as portions of regiments in the Army Estimates for the year. Instead of this vacillating policy, why does not the Secretary of State for War decide to promulgate or abandon the scheme?

Dr. J. Balbirnie, (Sheffield.)—We have received the packages and the communication, and they shall have our attention.

Mr. James Stewart, (Shotts' Ironworks.)—We should have much pleasure in assisting our correspondent, but we are unable to lay our hands upon the book. If he apply to our agents at New York, or to Mr. Baillière, or to Trübner and Co., 60, Paternoster-row, he will probably be able to procure it.

THE LATE SIR F. POLLOCK.

To the Editor of THE LANCET.

SIR,—In your notice of the late Sir F. Pollock you state that it was at St. George's Hospital he remarked that "if he had been able to choose his lot in life he would have studied medicine, but practised law." It was at a distribution of prizes at this hospital in 1867 that he used the words you have quoted, as I well remember, being, Sir,

Your obedient servant,

Charing-cross Hospital, August 26th, 1870. A STUDENT PRESENT.

*** We believe that the late Sir F. Pollock made the now familiar remark in regard to his liking for the study of medicine and the practice of law on several occasions, and, amongst other places, at St. George's Hospital, as we have stated.—ED. L.

Pater.—We entertain no question but that, if our correspondent will take his daughter to one of the leading oculists in London or any large provincial town, a further operation might effect material improvement in the condition of his daughter's eyes.

Mr. F. T. Tidman, (Great St. Helen's.)—The oil is neither more nor less than petroleum: a perfectly safe light-giver if procured at the proper place.

Medicus.—We cannot recommend such degrees as can be got on the continent without residence. We have no respect for them.

THE extreme pressure on our space renders it impossible for us to notice or (still more) to insert the large number of communications that have reached us on the eve of our going to press.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. G. Johnson; Dr. Thorowgood; Dr. Stuart; Mr. Solomon; Dr. Tylecote; Mr. Thomas, Birmingham; Mr. Yardley; Mr. Hallowes; Mr. Bogg, Louth; Mr. May; Mr. Ronald, Liverpool; Mr. Remy; Dr. Keene, Uppingham; Dr. Anderson, Shilton; Mr. Hicks; Mr. J. Jones; Mr. Grace; Dr. Foster, Birmingham; Mr. J. Niven; Mr. Holtby, York; Mr. Craven, Chatham; Mr. Stone, Manchester; Dr. Thomas, Glasgow; Mr. Williams; Mr. Henderson; Mr. Thin; Mr. Anderton; Mr. Pulteney; Mr. Roberts; Mr. Edwards; Mr. Harrison; Dr. M'Gill; Mr. Welch; Mr. Overbury; Captain Burgess; Mr. Emden, Hobart Town; Mr. Shirley; Dr. M'Carthy; Mr. Westhorp; Mr. Howard; Miss Abbott; Mr. Kent; Dr. Tuxford; Mr. Sheldon; Mr. A. G. Smith; Dr. Balbirnie; Mr. Chapman; Mr. Hill; Mr. Walker; Mr. Heffernan; Mr. Jones, Hornsea; Mr. Prigg; Mr. Ryley; Dr. Davies, Llandovery; Dr. Cresswell; Dr. Huggins, Trinidad; Dr. Allen, Kingstown; Mr. Maggs; Mr. Anderson; Mr. Vincent; Dr. Hammond, New York; Mr. J. Gamgee; Dr. Ferrier; Mr. Rayner; Dr. Coales; Mr. Tompsett, Norwood; Mr. Lewis; Messrs. Evanson and Co.; Dr. Sullivan, Boston, Mass.; Dr. Steven, Glasgow; Dr. Tibbits; Mr. Stanton; Mr. Maturin; Dr. E. Pierce, Denbigh; Mr. M'Cracken; Mr. Gray; Dr. Goate, Coventry; Dr. Stewart, Rangoon; Dr. Agnew, Hobart Town; Mr. Ringer; Mr. Lee; Mr. Kelson, Bootle; Mr. Twining, Walthamstow; Dr. Blagden, Minchenhampton; Dr. More, Rothwell; Dr. Fleming, Holly Vale; Dr. Phillips; Dr. Millar, Edinburgh; Mr. B. Tidman; Dr. Speedy; Mr. Stewart; Mr. Overton; Mr. Macauley, Harlow; Mr. Garlike; Mr. Baker; Mr. Tuson; Dr. Walker; Mr. Browne; Mr. Vale; Mr. Deane; Mr. Glover, Nottingham; Mr. Crook; Mr. Taylor, Ticehurst; Mr. Price; Mr. Mackenzie, Sidmouth; Dr. Malins, Cradley; Mr. Brock; Mr. Ashe; Mr. Eales; Dr. Felce; A Five Years' Subscriber; W. H. M.; C. P.; A Student Present; Non-Medicus; A. B.; Expectans; A Well-wisher for the Future of Epsom Boys; Ajax; Stella; F. S. G.; One who has been taken in; Pater; X. Y.; Castillano; A. B. C.; Fidele; Altera Pars; Epsilon; A Legally Unqualified Assistant; W. J. G.; T. S. V.; Enquirer; A Lover of Science; &c. &c.

Cornwall Chronicle, Gazette of India, Lincolnshire Chronicle, Welshman, Bucks Herald, North Wales Chronicle, Architect, Bradford Daily Telegraph, Lynn News, Croydon Chronicle, Kensington News, Journal of the Gynæcological Society, Pulman's Weekly News, Wilts Standard, Liverpool Journal, Coventry Standard, Lincoln Journal, Australian Medical Gazette, Northern Express, and *Liverpool Daily Courier* have been received.

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